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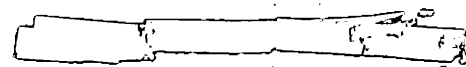
**Financial Administration and Accounting
as Institutional Development in an
African University - Learning from
Research Organisation at Eduardo
Mondlane University, in Mozambique**

Célia Maria Rodrigues Diniz

MPhil Thesis

Development Policy and Practice Discipline, The Open University

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To the capacity to learn everyday

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ACRONYMS

AHM	National Historical Archive
AIDAB	Australian International Development Assistance Bureau
AJU	July Activities
CCIC	Central Commission for Scientific Research
CNP	Central Planning Commission
FACOTRAV	Workers and Combatants Faculty
FAMESA	Financial and Administrative Management of Research Projects in Eastern and Southern Africa
FRELIMO	Front for the Liberation of Mozambique
GDR	German Democratic Republic
GEP	Office of Studies and Projects
ICIPE	Centre of Insect Physiology and Ecology
IDRC	International Development Research Centre
IMF	International Monetary Fund
ISCTEM	Higher Education Institute for Science and Technology in Mozambique
ISPU	Higher Education Institute for Polytechnic and University Studies
MEC	Ministry of Education and Culture
NORAD	Norwegian Development Agency
NUFFIC	Netherlands Organisation for International Co-operation in Higher Education
P&P	Present and Perspectives
PPI	Indicative Projection Plan
R&D	Research and Development
RENAMO	Mozambican National Resistance
SAREC	Swedish Agency for Research Development with Developing Countries
SIDA	Swedish International Development Agency
UDSM	University of Dar es Salaam
UEM	Eduardo Mondlane University
UNDP	United Nations Development Program

UNESCO	United Nations Organisation for Education, Science and Culture
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children Fund
USA	United States of America
USAID	United States Agency for International Development

ABSTRACT

This thesis describes an institutional development history of a university coming out of colonial rule, through the days when it had full national support for its central role for national development, leading to a period when the university had increasing difficulties claiming support for it. It examines the successes and failures of drawing up and implementing a strategic plan for university institutional development at Eduardo Mondlane University (UEM), Mozambique. The most positive result was to draw up the university's first strategic plan to transform the institution and to implement and build on it. The most difficult problem was the internal organisational weaknesses that constrained the institution in its implementation of the plan as scheduled, including those of finance and accountancy.

The plan was well received by government and the donor community and became a model in the region, with other African universities following it. However, the implementation of the plan was not as successful at least in part because it was critically naive about the level of resources the universities could claim. This lack of realism about accountability was deep-rooted: organisational development was unbalanced with specialists trained - but little training of integrators/managers. Examples of research funding and project planning demonstrate that the sense of realism and accountability can be learned, but may best be learned through establishing systems of financial control. The thesis suggests more consistent management systems. The expanded use of a simple financial tool illustrated the need to change and improve the financial and accounting systems of the university.

The thesis argues that the development of African universities should take into account not only strategic decisions at the macro and leadership level, but also the implementation capacity of academic and administrative staff, including the appropriate functioning financial management and accounting systems.

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- My university colleagues, in various departments and functions, who ventured with me, over the passage of time, to experiment and build the administration mechanisms that led the institution to withstand and now be able to enter a new century with the base to work with modern tools of management and administration.

The SAREC staff who contributed to the support of this thesis because they believed that it would discuss issues important for establishment of sustainable research support within African higher education institutions - they also receive my special thanks for the trust put in my work.

My Open University supervisor, Professor David Wield, who has always found ways to accompany my efforts and who was always present - despite the geographical distance - when I needed his advice. He remains an example of optimism and inventive capacity to overcome obstacles and constraints.

I am also indebted to Blandina who always supported me even in extremely adverse circumstances, and to the friends who encouraged me to meet my daily working obligations and have the energy to work on this thesis.

1.

Introduction: The thesis theme

The following pages present both a M. Phil. thesis and an account and analysis of approximately 20 years of direct involvement in financial administration issues in a Higher Education institution in Mozambique, Southern Africa.

The thesis discusses the improvement of financial administration at Eduardo Mondlane University (UEM) and its profound implications in the process of design and implementation of Higher Education Management and Policy activities. The period covered by the thesis is from Mozambique's Independence (25 June 1975) to the end of 1993.

This initial chapter covers the following:

- A general overview of the objectives for the higher education system in Mozambique during the period 1975 - 1993;
- An introduction to the framework in which higher education institutions work in Africa;
- An argument about the importance of good financial and accounting systems to enhance the University's performance;
- A concise introduction to the thesis;
- The reasons that have inspired the thesis and a summary of the sources and approaches used;
- The relevance of my own work experience and why I presume to write this thesis.

1.1

Higher Education in Mozambique on Independence Day

Mozambique as a new country arises from Portuguese colonisation in Africa, with roots in the European and Portuguese discovery adventure of the 1500's. The Portuguese explorers who reached what is now Mozambique in 1498 were preceded by Arab traders. Around 1500, (Grolier, 1998)

Portugal established coastal forts and conducted a thriving trade in gold, slaves, and ivory. Fixed colonial boundaries were drawn in the late 1800's, but little was done to develop the colony except what was necessary to facilitate its direct exploitation.

On 25 April 1974, a "coup d'état" led by Portuguese military forces provided the democratic framework for a new Constitution. A new Portuguese government pulled together all democratic forces that were marginalised during the 48 year regime dominated by António Salazar. African colonisation was a visible reason for the discontent of the military who were strongly affected by the liberation struggle in several African "domains". The 1974 momentum provided a new impetus to all liberation movements and during the rest of 1974 and in 1975, new African countries were acknowledged and accepted in the world's political atmosphere.⁽¹⁾

Mozambique, in the south eastern region of Africa, (Educação, 1996, p.44) faces the Indian Ocean along a 2515 Kms. coastal strip separating the country from Madagascar, via the Mozambique Channel. The country has a total area of 799380 Square Kms. being bordered by Tanzania (to the north), Malawi and Zambia (to the northwest), Zimbabwe (to the west) and South Africa and Swaziland (to the southwest) (see Maps, Figure 1.1).

¹ Guiné-Bissau & Cape Verde (now two separate countries) was the first one to become independent - even before the Portuguese official agreement for that purpose - in late 1974 while S. Tomé e Príncipe, Mozambique and Angola had gained such status during 1975. This was the end of the last European colonial empire of modern times!

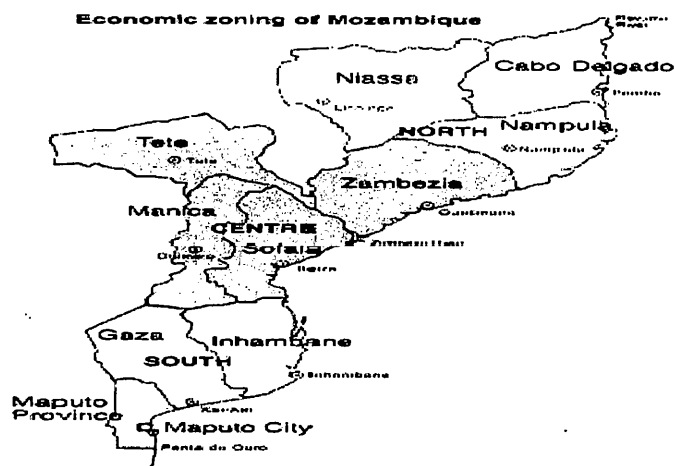


Figure 1.1 Maps Mozambique in Southern Africa

Grolier (1998) refers to the lowland coastal plains, with altitudes to 180m accounting for 44% of Mozambique's area; plateaus with elevations to 540m - the central uplands - cover 17%, and high plateaus reaching 900m make up 26%. Mountains in the northwest, near Lake Nyasa, reach 2200m and a lower range rises on the Tanzanian border. The highest peak is Monte Binga (2436m), on the border with Zimbabwe. Excellent harbours

include those at Maputo, Beira, Quelimane and Pemba. Rivers flow eastward to the Indian Ocean. The Zambezi River, Africa's fourth largest, bisects the country. The Limpopo River is the major river in the south, and the Rovuma is important in the north.

Most of Mozambique is tropical or subtropical in climate, with temperatures ranging from 18 degrees C to 28 degrees C. Warmer temperatures prevail in the rainy season (October to April), when up to 1,522mm of rain falls in the north, but only 760mm falls in the south. Savanna covers about two thirds of Mozambique, but there are extensive hardwood forests. Although there are significant mineral resources, agriculture is by far the leading sector, accounting for about 45% of all domestic production. Manufacturing is limited to agricultural processing and production, for the domestic market. Commercial fishing of prawns is the leading export. Foreign aid, in 1997, accounted for almost 80% of the country's gross national product.

In the latest census of 1997, the population totalled 16,891 million people (Estatística, 1997). In a 1990 survey, quoted by Mazula (1995), it was said that nearly 70.3% of the people were Christians, 13% were Muslims while 47.8% of the population also declared the practice of traditional religions.

The official language is Portuguese but indigenous languages - called "national languages" - are the first mode for communication ⁽²⁾.

Among the world's developing countries, Mozambique has one of the weakest human resource bases - the shortage of trained manpower at all levels is extremely acute despite all efforts since Independence in 1975. At the time of Independence the overall literacy rate was 8%. In 1993, it was reported (World Bank, 1993) that Mozambique had fewer than 3,000

² In the 1980 census 16 ethnic groups and 24 "national languages" were identified with Portuguese, at the time, spoken by 24.4% of the population (Mazula, 1995).

university trained people. The same source reveals some other indicators relevant for the education sector: the Gross Enrolment ratio for Secondary Education was just 7% while the same indicator for Higher Education was 0.2% (the corresponding ratio for Sub-Saharan Africa was respectively 23% and 2.4%). The percentage of female students, in Mozambique, was 33.7% in Secondary Education and 25% in Higher Education (Sub-Saharan Africa corresponding indicators are 37% and 24.1% respectively) (World Bank, 1993).

In 1975, the Mozambican authorities, coming from the FRELIMO Liberation Movement that had pursued the struggle for Independence, envisaged (Mazula, 1995, p.143) a new country that would be built on three pillars "1) be a new society with a "New Man" with a mentality not dependent on foreign values; 2) launch a new Nation and a New State, to become a modern nation and 3) develop an economy based on agriculture and industry", where education, as mentioned by Machel (interview, 1999), was ranked "as the highest priority of FRELIMO policy" by the Government "because if there is no serious and conscious investment in the education sector nothing of what we want to do or we may say is going to work as expected". Higher education - at the time there was only one institution: the University of Lourenço Marques - received special attention. The expectations of the University were broad and its key objective was to be (Machel, interview, 1999) "the main engine of the development process because without higher education graduates, despite high investment in the primary and secondary levels of education, the country would not be able to produce (...) and share knowledge being reduced merely to assimilate knowledge from other sources". Also (Machel, interview, 1999) the institution should have a "national identity, to be de-colonised, to be turned into a Mozambican institution".

While the above vision looked achievable in a relatively short space of time, reality was far different, partly due to the enormous lack of

qualified personnel for all national tasks.

The Higher Education sector was just one institution. It received direct guidance from the national Government and the FRELIMO party in a noteworthy statement of President Samora Machel on 1 May 1976, in a public ceremony on the university main campus, when the name of the institution changed to *Universidade Eduardo Mondlane* (after the first FRELIMO President) ⁽³⁾.

The University, as an institution as well as a community (teaching staff, students and all support staff) and all other interested actors, was targeted, in this statement, to receive clear indications for the future work of the institution, having as a starting point ⁽⁴⁾ (Machel, 1976, p. 19) "to have its roots deepen into the national reality working in a systematic and organised way towards the research and survey of Mozambican historical, cultural, artistic, scientific and technical bequest". Also (Machel, 1976, p. 19) "knowledge of the country is required to better restructure the courses curriculum, to define the pedagogical processes and to guide the research to be done".

While the colonial educational system was perceived as having been structured (Machel, 1976, p. 8) to "utilise science and culture as factors to undermine national pride and to strengthen subordination to foreign values" the new University of Mozambique should follow its own path in line with the legacy of its patron, Eduardo Mondlane, who had personified an understanding that (Machel, 1976, p.7) "the struggle for education and science is part of all people's wider struggle for freedom, social progress and revolution".

Accordingly, the University should foster and contribute to change (our)

³ Eduardo Mondlane University, in English.

⁴ All quotes from the statement of 1 May 1976 were translated from the Portuguese version document, bearing the thesis author full responsibility for its translation to English.

country from (Machel, 1976, p. 3) "a poor and developing one to a prosperous and strong country able to use its human and material resources for its own development and benefit of its own people". These goals would be achieved in line with the reasoning that through (Machel, 1976, p.4) "improving the production processes it would be possible to create the required infrastructure to base economic development towards advanced stages in agricultural and industrial production, to have more jobs and to improve the quality and the quantity of social services as such as sanitary assistance, education and social insurance".

The concluding phrase of this guiding statement for the "new" University was concise and left no room for any further discussions: (Machel, 1976, p.23) "The working class has to conquer power and implement it in the fronts of science and culture!"

1.2

Higher Education in Africa

My argument is that expectations for the University in Mozambique were not so different from the expectations of the performance of other similar institutions on the African continent: Most African countries have high hopes for their Universities: (Olsson, 1992) they were supposed to educate a qualified workforce, to research what is significant to the development and culture of the country, to disseminate information about scientific advance and to promote social analysis and debate. Also, the accomplishment of their role is measured by the "production" of qualified human resources and its impact in the places where they are established: educational qualifications are looked on as a tool of social integration and a step towards social acknowledgement and "reconnaissance" by all sectors of society.

African universities operate in countries with major economic constraints (⁵). Universities located in any western European country or in United

⁵ According to Thomas et al. (1992) and the World Development Report (1990)

States of America (USA) or Canada are immersed in an economic environment labelled as "high income" while, in contrast, there are no African countries in this same group of "high income".

Authors like Saint (1993) indicate that African Universities, in 1993, were nearing the end of their initial phase of development which had focused heavily on creating and expanding national systems of higher education and employing them to meet critical human resources needs in the public sector after their countries' independence. Beyond the initial phase universities' life will need to deal with a new generation of problems namely issues of financing, relevance, efficiency, quality and university/state relations.

Saint (1993) also states that the need to educate a qualified workforce to first degree level has been achieved at the expense of advanced postgraduate and research academic development; research has focused on providing solutions to immediate problems and to contribute to policy analysis and development plans; however and regrettably, all institutions are dependent on external researchers/externally trained scientific staff or external funds as long as there is a lack of national research training.

In the current context the rôle of any African university is framed within an integrated and irreversible globalisation trend where know how and resources are all pooled, apparently available to all those in the process but where, in truth, only the stronger and powerful players are the ones who benefit from the trend - the concepts of "stronger" and "powerful" are inevitably connected with the organisations and individuals able to access and utilise resources and know how.

African countries - as well as a number of countries in other regions - are grouped in the categories of "low" and "lower-middle" income - from a total of 47 African countries 4 are listed as "upper-middle income" while 17 are labelled as "lower-middle" income and 26 are considered as "low" income countries.

Mozambique is on the "low income" rank while South Africa is on the "upper middle income" rank.

As a point of conclusion for this argument it can be said that African universities were, and still are, dealing with a succession of triumphs and defeats to affirm themselves in their own nation, but also in the international arena and in equal partnerships with their foreign sister institutions.

1.3

The value of good financial and accounting systems in Higher Education institutions

This thesis aims to highlight the importance of sound and reliable financial and accounting systems for the overall performance of a Higher Education institution. The subject is Mozambique - a developing country, in Southern Africa, colonised by a technologically and economically weak European country (Portugal) dominated by 48 years of dictatorship. The thesis attempts also to underline not only the supportive nature of sound financial and accounting systems: they also play an important role for the organisation's self assessment and evaluation processes. These processes concern the importance of data and facts primarily prepared to assist analysis by academic managers (such as the University's Rector, and the Faculty or Department Heads) and are completed with economical and statistical information prepared by the administrative functions of the institution.

Mozambique's University financial and administrative systems were initially established to deal and report to a single "donor": the national Government - that had drawn a simple accounting and aggregated system applicable to all institutions receiving government funds. This situation had to evolve rapidly during the late 1980 and early 1990s to accommodate diversified interactions with a multitude of bilateral, multilateral and other single donors with a variety of reporting formats and whose missions could change regularly. The response of the University to donors reporting requests, was not only to provide internal

management and staff with comprehensive data on the available resources, but was conceived and developed within the organisation within a process-based framework and anchored on the package of research-projects funded by a Swedish specialized agency (⁶).

This thesis analyses the development of a simple but ingenious tool of financial management that assisted the institutional development of an African university. This financial management system, initially developed to support the research function of the university, is used as a case study of a practical and implementable tool to assist the financial planning of research work, funded from internal and external sources. The impact of the use of this tool led to its expanded use to cater for all other externally funded projects within the institution and for other financial planning information required for the day-to-day activities of the university.

When, in the beginning of the 1990's it was perceived that the Eduardo Mondlane University was extremely dependent on foreign funds, the first Strategic Plan of the institution was assembled. While this plan was devised by the leadership of the institution, the modest inputs of the financial planning tools already in place provided the plan with a more accurate sense of the financial resources in hand, and significantly assisted strategic planning.

To summarise, the thesis attempts to analyse the contribution of a reliable financial management system for establishing the relationship between strategic planning and day-to-day activities in an African university that was, and still is, undergoing a major transformation.

⁶ SAREC, the Swedish Agency for Research Cooperation with Developing Countries, a bilateral organisation within the scope of the Swedish government agencies.

1.4

The thesis

This section introduces the contents of the thesis, its inspiration and methods used.

1.4.1

Introduction to the contents

The thesis is organised in 6 chapters:

The present chapter introduces the theme, professional background of the thesis author and the rationale for the thesis theme.

This chapter highlights the point that the thesis is written by an "Administrator" and concerns the practices of administration using the experience and reflections of the author.

Chapter 2 provides a "black and white" snapshot of Eduardo Mondlane University during the period 1975-1993 (the period covered by the thesis). The description is organised into five main sub-chapters, each concerning a defined period as follows:

- The historical and political context of Mozambique up to 1974;
- The foundations of the future higher education system - from 1975 to 1979;
- The seeds of the future - covering the period from 1980 to 1985;
- The consolidation years - the period between 1986 to 1990;
- The road to modernisation - from 1991 to 1993.

The above periods were selected because they coincided with three of the University's Rector's mandates but also because of key national political events affecting UEM's objectives and priorities. For each period the main events affecting the financial system are presented.

The chapter intends to give the reader a sense of the continuous and daily struggle to build an academic institution in a country that was, at the beginning, deprived of qualified human resources and was also dramatically caught in the final stages of the cold war impact, seeing its resources consumed in an internal war. This deflected attention from the development of the national higher education system that was focused in just one institution. This chapter describes the budgeting process in some detail as well as the model of financial administration utilized by UEM inherited from the colonial period. The chapter goes on to describe the financial model utilized after Independence, entirely based on the Ministry of Finance instructions.

Literature consulted is either "grey literature" or reports and other materials about Mozambique. Three interviews (with Graça Machel, former Mozambique Minister of Education during the period 1975-1989, Armando Jorge Lopes, former Pedagogical Director at UEM and Patrocínio Silva, leading person in the Frelimo political organisation inside UEM's structures) are also used for this chapter.

Chapter 3 aims to give the reader a flavour of the changes taking place during the period 1990-1993, when the institution was tuned to a market economy and prepared it for a new environment (as more higher education institutions developed in country).

It begins by introducing the importance of "relevance" to home environment of African Universities. It goes on to summarise the concept of African universities as "development universities" before describing the Strategic Planning initiative at Eduardo Mondlane University. It concludes by considering the nature and process of Strategic Planning as a model for Africa.

For this chapter a substantial amount of theoretical and varied literature was consulted. It attempts to draw attention to key

historical events and facts, reported in Chapter 2, that are now theoretically framed and discussed, as part of the "growth and maturing" process of developing higher education institutions in Africa (and in the world). The notion of "development university" (politically utilised by Julius Nyerere and adopted by Eduardo Mondlane University (UEM) in May 1976) is more than a coined expression and reflects a certain type of "university" with a corresponding mandate for teaching and research and extension activities.

The Strategic Planning initiative at UEM is shown to come from two forces: the emerging market economy environment in Mozambique and the conditions presented by The World Bank to provide funds for what they called "Capacity Building at UEM". The relationship between the "new environment" faced by UEM and the "development university" concept is also discussed.

The financial resources available over time at UEM are compared, and those in the Strategic Plan ("Present & Perspectives") (P&P) are presented together with general comments on the administrative and organizational measures to be put in place to work properly with the desired amount of resources.

The chapter concludes with a reflection on the difference between actual administrative and organisational capacity and plans and the very ambitious resources needed for its implementation. This suggested a serious gap in ability to foresee the necessary administrative arrangements and management required.

"Grey" literature from UEM and related documents are key sources for this chapter.

Chapter 4 presents research as an activity inside any university where, for scientific requirement and quality, coordination and good management

is required. Research is shown to be a clear "capacity building" factor.

The chapter begins with a history of development of research at UEM written from the perspective of the university. Then the other side of the history of research development at UEM is analysed - the contribution of foreign research funding agencies. Finally, the chapter turns to the response of the university administration as it perceived the need to support research development:

- * How to turn invisible skills into a management tool;
- * The role of GEP (*Gabinete de Estudos e Projectos* or "Office of Studies and Projects") and the transformation of the financial system - the first results as a tool for research management;
- * GEP and the transformation of the financial system - the expanded value of a simple management tool.

Thus, the emergence at UEM of a "Research Management" and a "Research Administration" function, both obviously embryonic, is presented.

Two other features are also presented:

- (i) The impact of production of a simple statement of accounts, categorised by donor agency, for each activity (or project) - determined by the need to address the funding agencies, reporting requirements;
- (ii) The use of this same tool to make UEM's yearly consolidated budgets for the Ministry of Finance.

Again, the perceptions of the "academic staff" and the views of the "administrator" are presented.

Literature about the "financial research tool" at UEM - from foreign sources - is mentioned together with other relevant literature. Four interviews provide insights for this chapter: with José Negrão and

Arlindo Sitoi, both having worked as Academic Council Secretaries, and with Ann Stöberg (Program Officer in the beginning of SAREC's collaboration) and Berit Olsson (Program Officer during the expansion of SAREC's collaboration).

Chapter 5 "The minimum requirements of the financial and accounting systems at UEM" uses as baseline the Coopers & Lybrand report on "Accounting systems review of the University", (Coopers, 1993) ⁽⁷⁾.

The chapter was written as an attempt to link the assessment of UEM's existing financial accounting systems to the need for its reform. The advantage of such a significant reform was to have a proper budgeting system, as well as to abide by accountability strings. Most important, it aimed to provide all necessary links to the strategic planning activities in real time as they evolved.

The links between mere technical adjustment and other more complex organisational and strategic issues in the governance of the institution are also discussed. Once more a connection between the views of "academic staff" and "administrators" is made.

Literature for this chapter comprises the Coopers report and other important titles on the subject.

Chapter 6 aims to present UEM's struggle to control the "present moment" without having the capacity to anticipate "the need to build the future" which also required a step-by-step process of installation of administrative routines and capacities to supersede the "political" fashions and debates (e.g. the debates about "flexibility" and "decentralization"). It will also point to good and less good practices, in the financial administration of the institution, during the

⁷ Pricewaterhouse Coopers (Mozambique), Lda. gave authorization to fully utilise the report.

period reported in the thesis.

1.4.2

Inspiration and methods

The origin of this thesis goes back to 1992, when four reasons shaped its backbone:

- The first was based on my professional status as a Senior Administrator at the University Eduardo Mondlane facing an increasingly complex environment relating proper allocation of resources to the activities taking place and new ideas bursting around the institution. My background was that I had been working in the institution since 1973, serving in senior positions since 1975 in various service departments with emphasis on financial matters. This thesis is a reflection on practices over the period studied;
- The second related to consciousness of the pressing need to change existing management systems to enable the institution to cope with donor multi-funding requests and to provide the various sectors of the institution and university community with a responsive and supporting administration;
- The third justification was linked to the perception that the end of support from Eastern European "socialist" countries and the financial restrictions resulting from 15 years of an internal-war situation would require new approaches and creative ideas to maximise the financial resources available;
- Finally, the fourth reason matured around the argument that Mozambique's national university was facing constraints that, also, affected similar institutions on the continent. Therefore, the knowledge of those challenges and the way they had been faced and resolved, could be used as learning opportunities for the local

institution.

A fifth justification was added later to those above and has gained substance and cohesion during the writing period of the thesis. That was the perception that most of the literature consulted for the thesis captured a prevalence of an "academic" view of the process and development of Higher Education in Africa with much less weight given to an "administration" approach to the same issues.

Higher Education administration is, in my opinion, like the non-visible part of an iceberg - which when not considered may induce dangerous implications in view of the area and deepness involved. The totality of its visible part together with a substantial portion of its underwater volume is built by academic staff, but the more distant and non fashionable share is based in and constructed by "administrative" and "administration" issues.

As stated in Lockwood (1993, p.1), "Universities expect and need administrations of high calibre, with a wide spread of expertise and of sufficient size to provide an efficient and comprehensive service. It is essential to the well-being of a University in contemporary and foreseeable environmental circumstances that a permanent Administration should be present to support its diversity of activities, to assist in the protection of necessary standards (...), and to help promote essential change. (...) Full-time professional administrators are not employed simply because members of the academic staff do not have the time to undertake administration, nor should they be employed except as part of an integrated and flexible single Administration":

This fifth reason has become the engine driving me during preparation and work on the thesis as I came to understand that appreciation of events and their consequent implications was modelled through eyes that, clearly, had other views from those who had only academic

responsibilities. This became even clearer when reading Palfreyman and Warner (1996, p. 1) who mentioned that "everyone who works in higher education quickly becomes aware that (...) institutions contain two different types of managers: those who run academic departments or units (i.e. primarily for teaching, research or a combination of both), and those who run service departments or units, whether they be essentially academic in nature, such as the registry or the library, or more obviously of a physical support character, such as portering, residential accommodation or estates. Many of the former have accepted the title of "manager" only with some reluctance, and many of the latter have been traditionally, and still are, called by the former (and sometimes by themselves) "administrators"". The authors [Palfreyman and Warner (1996). p. 5] also say, in a circumspect and English manner, that in "almost all higher education institutions, there is a "them" and "us" aspect to the manager-academic relationship, which will vary from nothing more sinister than staff club banter (...) to real conflict and tension, especially at a time of cuts, when perhaps the one topic that academic departments can agree on is the need to prune the "management"".

Reading the above was like reviving my whole life at the University in a glimpse of my eyes!

..*

The preparation of the thesis has included the following procedures:

- To recollect situations in a long professional career where the author tried to capture perceptions and concepts coming from practical experience that started as a teacher of financial and accounting methods in a Vocational Secondary School in Mozambique and that also included working in various regions of Mozambique in management and accounting positions in business and educational institutions.

- To systematise an intense working experience with situations of a varied nature, all encompassing a contribution to an Education System valid for Mozambique - through participation in committees at the University and at the Ministry of Education; drafting alone or in collaboration discussion papers for internal debates at the University; writing alone or participating with other colleagues in the preparation of proposals to be funded by internal and external donors; contacting, speaking and interacting and reporting with diverse constituencies (Government officials, foreign and national donors, academic staff - students - supporting staff of the University, press officials, foreign consultants and others); and managing and coordinating the work of staff under my responsibility in the University's hierarchy.

In other words, in most of the events reported "historically" in this thesis, I have been able to actively participate.

- To self-assess the consistency of my ideas and concepts expressed in papers, documents and other reports that are part of the "grey" literature or published publicly.
- To synthesise my work at the University Eduardo Mondlane to be able to define the key "in house" moments of the evolution of the institution, associating them with other external influences. Moreover, it was necessary to classify all materials produced by the institution selecting the ones relevant for the thesis.
- To interview key actors.
- To consult people of the university community (such as senior staff during the period covered by the thesis and known by me in my capacity as UEM's Senior Administrator, Mozambican researchers who benefited from foreign funds allocated for their work and who I

have known from dealing with the foreign funds management, and other participants in the University's life during that period).

- To read and review literature (Bell, 1992) including a) as an "inadvertent" primary source the grey literature produced inside Eduardo Mondlane University and related to its own work; b) as a "deliberate" primary source the University's first Prospectus produced in 1992 for the celebration of the 30th anniversary of the institution, and c) as secondary sources all the foreign published bibliographic references and documents mentioned in the thesis bibliography.

As described above the reasons for writing this thesis were several but the most important is the opportunity to have an analytical approach to a process of building capacity and managerial upgrading that took and continues to take place in Mozambique and that can serve as a reference point for other organisations engaged in a similar process.

The starting material is a set of real experiences that could be seen as "battle tested", framed with appropriate analysis and methods to deduce all possible lessons. Clearly, this thesis is a truly empiricist product, acquired through experience and practice and only later supported by theoretical elements. Appendix 1 contains a summary of research methods utilised.

1.5

A sincere contribution towards the improvement of education in Mozambique

Having been working in educational establishments and on educational issues all my life I have had to deal with managerial and administrative issues of all possible peculiarities. As Senior Administrator of the Eduardo Mondlane University, in Mozambique, I spent at least 20 years dealing with national and international financial resources affecting the

life of the whole university.

During the University's years I was involved almost full-time in attempting to **assess** and manage the demands of all people's, sectors and authorities to accommodate activities to financial resources that were never sufficient or available in time.

The emotional process that was associated with this uninterrupted demand was like a staircase with four steps:

- The first involved the analysis of requests for a number of planning and budgeting exercises. Despite all piles of paper and hours of computer work, there was still always a daily pressure of lack of availability of funds in cash;
- The second step comprised the presence of a thinking process related to autonomy, decentralisation and devolution of authority and how good and how bad all that could be;
- The third step was where I had to listen to all complaints against bureaucracy and the size and the exigencies of the administration processes of the University;
- And the last (but not the one that would solve any problem) was the step where everybody would continuously talk about inefficiency and corruption and its consequences in African institutions.

At this point I wondered whether I would be able to go to the office next day!

The above description translates figuratively the day-to-day succession of moments of pressure and the capabilities in hand to deal with all management requirements. This package of tensions was like the having to flip a coin to foresee how best to manage the resources available and how to deliver the services required in an efficient and effective manner.

Looking back to the time I have spent at the University, I am now sure that the most challenging period was the one where it was not crystal clear what exactly I had to do: when having to work with the International Projects at GEP and because of the vagueness of the directions provided about my role, I had to substantiate what I was doing, attaching my own understanding of what should be sensible financial management of use of funds. That was when the "research activities accounting system" was invented (as in Chapter 4) and expanded to other activities outside the research work umbrella.

Broadly speaking I have to conclude this chapter stating that my vision of society is somehow an amalgamation of the positive elements of Liberalism (like free market influences) but also of the Socialist and the Basic Human Needs and the Ecologist paradigms, in line with the conviction that societies are built through a process of incremental steps where the cultural and historic features of every individual society and/or group have to be taken into account for them to move towards an upper stage of quality of life and living standards. In other words, nothing and nobody in life come out of a straight cut combination of "right" or "wrong" or "black" or "white" but as a continuous and evolutionary synthesis of facts and events with feelings and emotions, all flavoured and modelled with values and ethical codes.

Within that context the simple and flexible 'research activities accounting system' was developed and shown to be useful not just for day-to-day institutional administration but also for strategic planning purposes.

2.

A portrait of the higher education system in Mozambique

A description of the higher education system existing in Mozambique from 1975 to 1993 will be presented in this chapter. This description while aiming to show what was perceived by the public is also seasoned with organisational and administrative insights on the functioning of the system. The main aim of the chapter is to provide the reader with a view of the ups-and-downs of the maturing of a national university in a developing country. It provides a context within which to situate the rest of the thesis. It also provides an analysis of the organizational characteristics of UEM as Mozambique's prime higher education institution; key to an understanding of the organizational innovations described in later chapters. The description here is relatively long, mainly because there has been no published material of this kind until now.

The contents of this chapter are divided as follows:

- A contextual section covering the political system and why a "higher education" institution was established;
- Periodisations, beginning with 1975 to 1985 (divided into two sub-periods from 1975 to 1979 and from 1980 to 1985). The main events affecting the university's life are described as well as a description of the financial and accounting systems in place;
- A second period from 1986 to 1990. Again, a description of the financial and accounting systems in place is provided;
- A third period going from mid 1991 to 1993;
- Conclusions.

2.1

The historical and political context until 1974

Mozambique is referred to in Portuguese history as the place where Vasco da Gama, on his route to India, first rested from the troubled waters of the Cape. Vasco da Gama, getting fresh water as well as vegetables and fruit, was very pleased with the courtesy and hospitality of the indigenous people and reported in his travel diary that they were "good people" and baptized the place as the "Land of the Good People" - now known as Inhambane, in Southern Mozambique.

Mozambique's first role in Portuguese history was to keep access to the sea routes of the Indian Ocean; in more modern times and until 1973 Mozambique was also seen as an agricultural producer of raw materials for Portuguese industry and as a market for Portuguese products. Mozambique is mentioned in Portuguese history first as a "colony" and in the late 1960s as an "overseas province".

While Mozambique was not given the same importance as Angola (with its confirmed potential in agricultural, mining, oil and fisheries resources), the territory was always a valuable asset for negotiations with the United Kingdom and other European powers due to its location in the Southern Eastern African plateau ⁽¹¹⁾. Its closeness to South Africa also resulted in important migrant labour and part of harbour income after the gold mines were established from the late 1800s.

The tools of Portuguese colonisation in Mozambique from the 1900s were simple and crude (Britannica, 2000): through controlled deportation of Portuguese convicts and leasing of parts of the territory to "companies" that would ensure a European presence. Following the rise to power in 1928, in Portugal, of António de Oliveira Salazar - who stayed in control

¹¹ Currently having as neighbour countries (in alphabetical order) Malawi, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

of state affairs until 1968 - the overseas territories in Africa and in Asia were seen as part of an imperial treasure where Portuguese/Christian values and culture should be replicated.

The conservative and outdated practices of governance did not stop the emergence of freedom and independence aspirations and Liberation Movements in the Portuguese colonies which built the cradle for the Armed Forces Movement that, in Portugal, in 25 April 1974, organised a "coup de état".

In Mozambique, the movement known as FRELIMO ("Frente de Libertação de Mozambique") (Mozambican Liberation Front) led the negotiations that culminated with the country becoming independent in 25 June 1975 after a transitional joint government that lasted from 20 September 1974.

A concise view of Mozambique's development situation at the time of independence could be gathered from a wide source such as the Grolier Encyclopedia, 1998, p.2: "Fixed colonial boundaries were drawn around Mozambique in the late 1800s, but little was done to develop the colony except what was necessary to facilitate exploitation. In fact, Portugal made no pretense of social development. By 1975 only 10% of the population were literate, and even rudimentary and bureaucratic and technical skills were rare".

2.2

The foundations of the future higher education system

At the time Independence was declared in Mozambique the Higher Education system was represented solely by the University of Lourenço Marques.

This institution was a product of the evolution of the higher education system in Portugal, thoughtfully described by Vitor Crespo (1993) ⁽¹²⁾ in a synthesis of the conceptual and legal architecture of the Portuguese

¹² Vitor Crespo was Rector of the University of Lourenço Marques from 1970 to 1972.

higher education system from 1911 until 1992 - noting that this was the period of "republican" influence. Crespo is used extensively in this section of the thesis.

In 1911, a University Constitution was drawn by the Portuguese republican authorities aiming to open the higher education system to graduation of skilled people of different origins with a view to having human resources for the country's development. The institution covered by this Act had pedagogical autonomy and its leadership was personalized by a "Rector" ⁽¹³⁾ appointed by the Government authorities based on three names put forward by the university community. Financial and administrative autonomy was also attributed to the universities while Government would pay for the salaries of all academic and non-academic staff and all other recurrent expenditures.

From October 1926 to April 1974 - the "Salazar period" - the Portuguese legal basis for the higher education system was changed; Crespo indicates that pedagogical and financial and administrative autonomy was taken away from the institutions and all decisions were dependent on Government policies and instructions. The nomination for "Rector" changed to appointment of individuals selected by Government.

Crespo uses an illuminating phrase to characterise this period (Crespo, 1993, p. 58): "there was, therefore, no interest to open access to the higher degrees of education being enough to have a small "élite" to lead the Nation - small enough to avoid competition".

The creation of the higher education institutions in Africa is pointed out by Crespo (1993, p. 77) as "corresponding to an important change in Government's position regarding colonial affairs acknowledging that it was indispensable to have higher education qualified human resources for the development of those territories and, consequently, of the whole

¹³ Equivalent to the "Vice-Chancellor" position in the English system.

country".

The higher education institutions installed in Africa by the Portuguese colonial authorities aimed to provide educational conditions for settler families as well as for nationals from the country considered as appropriate by the colonial authorities (¹⁴) and were set up in the midst of the Liberation Struggle of the African Portuguese-speaking countries movements - their final goal was the creation of an "European modelled intelligentsia" that would perpetuate eurocentric values and corresponding civilisational patterns. Angola and Mozambique were chosen as the places to set up such institutions which followed a strict pattern of intellectual control: no "Social Sciences" or remotely related courses were opened and only the Science, Engineering and Medicine courses were installed. The higher education institutions became known as *Universidade de Lourenço Marques* and *Universidade de Luanda*.

The Mozambican university was staffed with Portuguese citizens coming either from well established Portuguese universities or young graduates who were challenged by the adventure of working in Africa.

At the time the territory was called *Província Ultramarina* (Overseas Province) and was under the leadership of a *Governador Geral* (General Governor) who was reporting to the *Ministro do Ultramar* (Overseas Minister), based in Portugal. All the funds for the functioning of the Province were provided by the Overseas Minister/Ministry within the Portuguese Government.

The Rector of the University necessarily had the trust of the Portuguese authorities and was politically accountable to the Overseas Minister despite its educational and scientific mandate. He was also within an hierarchical chain reporting to the Minister of Education (for pedagogic

¹⁴ Nationals from Mozambique who obtained particular "standards" of education and behaviour would receive the name of *assimilados* and would be given official identity documents and social opportunities.

and educational matters) and to the Overseas Minister (for development issues and for financial allocations) both in Portugal and, finally, to the General Governor for issues of territorial security and for financial fluxes arising from the relationship with the "Mother Land" (and differing from the rest of the educational system in the territory that was completely under the supervision of the General Governor through his Provincial Under Secretariat). Crespo mentions (1993, p. 71) the existing accountability system as having launched "a handful of troubles requiring discernment and wisdom of the Rectors to develop the nascent institutions especially in view of the scientific and academic quality required".

The funds for all University operations were allocated through the Overseas Ministry and the institution followed a complex system of reporting not only to the Provincial Treasury (that was under the General Governor) but also to the Overseas Ministry. The institution had autonomy for changes in budget lines within the scope of the funds available; the accounts of the institution should follow the regulations and norms of government.

The organizational model for the new higher education institutions, while it appeared to be a "new" model, was consistently anchored in the European (Portuguese) model. It did, however, attempt to accommodate the realities of the areas where the graduates of the institutions would later work: Crespo mentions (1993, p. 73) that "the new institutions tried to develop in close contact with local needs and community services".

The first Rector appointed by the Portuguese authorities was José Veiga Simão (VSimão) ⁽¹⁵⁾ who was the right man for the job at that time.

¹⁵ VSimão (a PhD in Nuclear Physics) was an enthusiast of the "English model" with which he became familiar during his doctorate studies. After being "Rector" of *Estudos Gerais Universitários de Lourenço Marques* and *Universidade de Lourenço Marques* he was appointed as Minister of Education of Portugal and promoted the Education reform called "Reforma Veiga Simão" (Crespo, reveals his enthusiasm for Vsimão reforms, in the book mentioned in the bibliography). After 1974, VSimão had several public positions as Ambassador of Portugal in the United Nations, President

VSimão was firstly a graduate from the University of Coimbra (the oldest and most traditional Portuguese university!) and secondly had the capacity to bring with him to Mozambique young but qualified and enthusiastic academic and non-academic staff to work on setting up the new institution.

The institution had "green" light conditions to start its operations - in general terms it was common knowledge that the salary benefits of the University for academic and non-academic staff were better than the general public service. VSimão had a strong vision for the University. He prepared a development plan for the University in a good area of the capital (Profabril, 1969) that was to be funded through the mechanism of 5 year "Development Funds" from the colonial government.

In short: the institution was funded at levels sufficient to attract staff from Portugal and to equip the laboratories and libraries as well as to have operations running smoothly. The administrative operations of the University were run efficiently compared with other public services - where a mixture of public service general norms and close monitoring of financial operations dominated.

Few if any nationals from Mozambique were in academic staff positions, these mainly in supporting services and with administrative and technical functions. Johnston (1984, p. 66) reports that in 1973 "only 40 of the nearly 2000 students were black".

It could be said that the University was a "normal" place where the opening each year was celebrated with a pompous ceremony where archers dressed like those of the medieval University of Coimbra, in Portugal, would escort the procession of senior professors to the "Sala dos Actos

of the National Institute of Engineering and Industrial Technologies (INETI) and also as Minister of Defence.

Grandes".

By April 1974 the University of Lourenço Marques was functioning regularly with more than two thousand students and was staffed and equipped in modern terms - compared with Portugal standards. Students would get a "Licenciatura" degree after 5 years of courses and the presentation and approval of a dissertation thesis - after a total of 11 years of primary (4 grades), and secondary (5 grades), and pre-university studies (2 grades). An ambitious plan was at full speed [Profabril (1969)] to build new premises exclusively owned by the University where courses of Sciences and Engineering, Agriculture, Medicine, Arts, and Economics would exist (¹⁶). Services to the public were provided through the University Hospital linked to the Faculty of Medicine. The Faculty of Sciences labs (for the courses of Biology, Chemistry, Physics and Geology) would perform analysis under request of the public or other public services. There were hostels for students from families living in other parts of the country, and several canteens and a good restaurant were available to all staff and students.

2.3

The hardworking years after independence - from 1975 to 1979

2.3.1

The university seen by the public

At Independence Mozambicans had to build from scratch a different economic framework - the old economic system was based on an intricate relationship between the "Mother Land" and the colony. When the news of the "coup d'état" in Portugal reached Mozambique the massive uncertainty led to major disruption and challenge to the system which dramatically affected the University. Following the retreat of almost all Portuguese authorities, the Rector of University of Lourenço Marques immediately fled to Portugal. In September 20, 1974 and following a period of intense negotiations between FRELIMO and the Portugal authorities, a

¹⁶ The Economic and Management courses were opened in the last years of the colonial

Transition Government comprising FRELIMO members and sympathizers and Portuguese official representatives started to work to pave the way for the official Independence of Mozambique on June 25, 1975.

The triumphant liberation movement now running Mozambican affairs was a typical product of the pan-African and nationalistic liberation movements from this period where "socialist" aspirations and values were part of core ideas. FRELIMO (Manghezi, 1999), after 1964 having lost the official support of the USA and American organisations, was steadily supported by the socialist countries [like the German Democratic Republic (GDR) and the Soviet Union], also by the European and American "left" movement and organisations of solidarity and social consciousness as well as by other European countries with a strong social component (such as the nordic countries).

FRELIMO, no longer a Liberation Movement but now with governmental responsibilities, had a political project for the country comprising three pillars (Mazula, 1995) announced in the farewell speech of Samora Machel to the Tanzanian people when returning to Mozambique (in May 1975):

- To launch a new social order and to give place to a "New Man", with a vision of the world and life free of foreign dependence rooted in a consciousness of modernity;
- To set up a Nation and a new State as a modern nation;
- To base the economic development of Mozambique on agriculture but with a rapid industrialization dynamic.

FRELIMO attached utmost importance to education and in 24 July 1975 - immediately after Independence! - Government authorities decided to "nationalise" ⁽¹⁷⁾ all private owned schools and to expand the concepts of this nationalisation decision aiming (Mazula, 1995):

¹⁷ ruling.
On the same day also all the privately owned health and medical clinics were also nationalised.

- a. To avoid any conflicts coming from the private owned schools whether pre-primary, primary or secondary levels of education;
- b. To destroy social inequity;
- c. To pave the way for a system of education that will give access to education to all men and women serving the masses and therefore to set up a new concept of Education.

Concurrently, access to education was defined as public, free and without any discrimination as to race, sex or religion.

The colonial system of Education for urban areas had four levels (Mazula, 1995):

- primary school (4 years);
- general secondary school (from 5th to 11th year) with access to higher education through an admission exam;
- technical secondary school (industry/commerce) (from 5th to 9th year); students with this education could attend medium school (4 school years for industry and 3 school years for commerce and accounting) and could also enter higher education through exams;
- higher education (all courses with a "Licenciatura" degree after 5 academic years and thesis dissertation - For Medicine the course was of 6 years + 1 year of internship at Maputo Central Hospital.

Mazula argues that the period 1974-1977 (1995, p. 147) was a period for "declaration of the exercise of power at all levels" and mentions that a) the dynamics of the process had given birth to a connection between "education" and "mobilisation" and b) that FRELIMO made a political intervention into the process while the Ministry of Education and Culture (and the University) concentrated their efforts on the structuring and organisation of the educational system and functioning of education. Education was expanding due to popular mobilisation and the mobilisation of the population would support the national reconstruction goals as envisaged by FRELIMO. The "mobilisation of the population" was linked to the *Grupos Dinamizadores* (Dynamizing Groups) that were composed of

FRELIMO sympathizers and militants. They would ensure the dissemination of FRELIMO ideology and decisions and also would agree with popular initiatives provided they were "for the good of the people". With the restructuring of FRELIMO, in 1977, they changed their role of being "dynamisers of participation" to become "communicators of the Party's central decisions" (Mazula, 1995, p. 147-148).⁽¹⁸⁾

Where did the University stand at this important moment of history?

In early January 1975 a new Rector was appointed for the University of Lourenço Marques - for the first time a Mozambican with a very different background and individual story from his predecessors (Fernando Ganhão, a graduate in the History of Africa from a Polish University and a long time FRELIMO militant who had been in exile for years and always had been charged by FRELIMO with tasks related to educational issues). Fernando Ganhão was charged to keep the University of Lourenço Marques open and functioning ⁽¹⁹⁾ in a time where everything was different from the past, always changing and certainly unpredictable.

Arising from the innate nature of the Portuguese colonial system and decision to educate nationals, with good academic standards, there were not enough qualified people in the country to fill all positions in the University's staff structure. The people who remained at the University, whether Mozambicans or Portuguese, were forced to keep the University in operation. And how hard they had to work! The qualifications criteria for the staff were diverse: while for the academic staff the educational qualifications criteria were strict, for the non-academic staff "practical knowledge" of the functions was the asset that kept things going.

¹⁸ Certainly the "Dynamising Groups" were instrumental in the boom in the Primary School enrolment!

¹⁹ This asset in the African Portuguese speaking countries was of great importance: In Angola, the university had its operations severely affected by the country's political process and there were no higher education institutions in any of the other countries: Cabo Verde, Guiné Bissau and S. Tomé e Príncipe.

While the operations of the University started to be coordinated with the activities of the new Ministry of Education & Culture of Mozambique as well to the new Ministry of Finance, the role of the institution in the country's development was not explicitly but only intuitively foreseen. Only at the celebration of the 1st of May the year after Independence (International Workers Day) did President Samora Moisés Machel announce that the University would change its name to *University Eduardo Mondlane* (UEM), after the first FRELIMO President (²⁰). This statement presented a vision of the role of the national University in the country's development strategy - Olsson concisely presents this vision mentioning that "UEM should serve the needs of independent Mozambique and provide training and research towards cultural and economic development. (...) the university should serve the needs of the entire population and not only cater for a small privileged group. (...) the university should undertake research, and not only be a teaching institution" (1994, p. 44).

The new vision for the University was a rupture from the past and required not only a change in its own identity and culture but also in the minds of everybody working within the institution.

Due to the radical political changes the governance and financial

²⁰ Eduardo Chivambo Mondlane was a founder and the first President of FRELIMO; he was a postgraduate in Anthropology and Sociology from Northwestern University (USA). In February 1969 while in Dar-es-Salaam, Tanzania, he was assassinated when opening a book that contained a bomb.

structure of the University also had to change:

1. Relating to main governance influences:

- The Rector had to account for the University's performance to the FRELIMO party;
- At the internal level of the University the Rector was regularly working with an assembly of representatives from throughout the University, all of them defending FRELIMO interests and opinions and composing a *Reunião dos Primeiros Secretários de Grupos Dinamizadores* (Committee of First Secretaries of the Dynamizing Groups) (free translation from the thesis author)⁽²¹⁾.

2. Regarding administrative arrangements:

- The Rector of the University was appointed by the President of the Republic and was accountable to him while coordinating activities with the Minister of Education &

²¹ The evolution of FRELIMO structures inside the University was (Silva, interview, 1997):

- 1974 - Sympathizers and FRELIMO militants grouped within Faculties and Services in *Grupos Dinamizadores* (Dynamizing Groups) - their aim was to avoid sabotage and destruction;
- From January 1975 to March 1977 - All Secretaries of *Grupos Dinamizadores* met weekly with the Rector of the University.
- From April 1977 to March 1979 - the above group/s were named as *Grupo Dinamizador de Círculo* (Circle Dynamizing Group) (this group continued to meet regularly with the University's Rector) and *Grupos Dinamizadores de Célula* (Cell Dynamizing Groups) - their aim was to recognise the FRELIMO structures inside the University following the 1977 FRELIMO 3rd. Congress where Marxist-Leninist principles were accepted and the Central Planning method for all economic development and government policies was agreed.
- From April 1979 to March 1981 - Appointed by Frelimo a Secretariat of FRELIMO militants from the University took charge of the Circle Dynamizing Group (that continued to meet the Rector regularly) and heading all sectorial Cell Dynamizing Groups. This Circle Dynamizing Group was organised in areas of work including an "Education & Research" sector and attempted to oversee and opinate on activities being carried out at the University. (names of members of the Secretariat of the Circle Dynamizing Group were Patrocínio Silva, Carmo Vaz, Narciso Matos, Ana Gouveia and Miguel Simbine among others; Ana Gouveia oversaw the "Education & Research" area) (only Miguel Simbine was from the administrative staff).
- From April 1981 to the end of 1983 a newly elected Secretariat was assigned for the Circle Dynamizing Group (members were Ivo Garrido, Luis de Brito, Isabel Casimiro, Teresa Cruz e Silva, João Loureiro and Marcelino Liphola - Isabel Casimiro with "Education & Research").
- From end of 1983 to July 1987 there was an interim period for which no data were found.
- From August 1987 to June 1989 again a newly regular elected Secretariat took charge of the Circle Dynamizing Group (members were Patrocínio Silva, Carlos Serra, Castigo Langa and Fernando Bila among others. Carlos Serra was overseeing the "Education & Research").
- The last Circle Dynamizing Group was elected in July 1989 and its work disappeared officially with the 1992 General Peace Agreement between FRELIMO and RENAMO (members for the corresponding Secretariat were Narciso Matos, Paulus Gerdes, Fernando Bila and Rirmno Mucavele among others; "Education & Research" was supervised by Paulus Gerdes).

Culture;

- The Rector worked in coordination with a council of Dean of Faculties and Heads of Administrative and supporting sectors, all elected, and later confirmed by the Rector ⁽²²⁾;
- Funds for the university were allocated through the Ministry of Finances and the National Treasury. The University continued to account for its funds directly to the Ministry of Finance and the National Treasury without having to report to the Ministry of Education & Culture. Yearly budget proposals were presented directly to the Ministry of Finance.

The linkage between administrative and political decisions was obvious and certainly a Dean or a Head of Service completely sympathetic to FRELIMO views and interest would have a less complicated life than an independent person!

The number of students at UEM (grouped as in the present organisational scheme) for the years 1975 to 1979 is presented in Table 2.1. The year 1977 presents the lowest number of students ever because most returned to Portugal with their families; from 1979 the number of students starts to grow mostly based on enrolment at the "Faculty of Education" area where "Teachers training" crash courses were taught and also other crash courses to give people the minimum requirements to follow university courses.

²² An exception was the Head of the Social Services who was not elected but directly appointed by the Rector (the first one after Independence was Célia Diniz, this thesis author and who had come to this position from the ranks of the administrative staff); however, this person had to work with an elected committee comprised by representatives of academic and non-academic staff as well as students.

Table 2.1

Students total enrollment by Faculties (per selected years)								
Faculties & areas of studies	Years							
	1975	1977	1979	1980	1985	1986	1990	1993
Faculty for Workers and Combatants	0	0	0	0	90	124	42	
Faculty of Education		450	1093	847	590	447	0	
Faculty of Sciences	168	66	119	90	69	106	391	576
Faculty of Engineering	426	88	100	160	541	587	804	938
Faculty of Agronomy & Forestry	104	41	51	60	208	243	209	394
Faculty of Veterinary	91	43	50	70	113	117	146	141
Faculty of Medicine	525	153	118	108	162	194	287	414
Faculty of Law	458	156	64	150	0	0	253	507
Faculty of Economics	285	134	107	147	238	256	485	559
Faculty of Arts	376	71	132	90	20	0	185	358
Faculty of Architecture & Physical Planning	0	0	0	0	0	30	124	149
Totals	2433	1202	1834	1722	2031	2104	2926	4036

Sources: UEM (1991) *Informação Estatística 1986* and *Informação Estatística 1989/1990* (for the data from 1975 to 1990). Maputo, Mozambique: Estatística, Instituto Nacional de (1997). *Anuário Estatístico 1997* (for the data of 1993). Maputo, Mozambique.

In the year 1995, most Portuguese origin staff (academic or non-academic) returned to Portugal leaving vacancies in all staff structures. Staff vacancies opened throughout the organisation - faculties, laboratories, libraries and administrative offices. Administrative sectors were running on automatic by copying mechanically previous administrative routines.

Olsson (1994) indicates in her book that the academic staff numbers for 1975 were 5 Mozambican and 154 expatriate teachers (for 2433 students).

In 1975 it was clearly anticipated that the total number of students of the existing University would decline and that the boom coming from the enrolment determined by the Independence wave would arrive at the institution some years later - giving time to better organise.

Looking back on this period it is my reflection that, despite the pace of work at the University, certainly tense and frantic, with the political control quite visible, the institutions remained a place where at that

time ideas and debates could be held in a civilized manner.

During the first four years of life of the University in Mozambique, there were some landmarks to note:

- The University received from Government the task to focus on teachers' training for the lower levels of education (secondary and medium level of the system of Education). The majority of the students from pre-university courses and 9th grade were directed to teaching;
- A Faculty of Law opened at the University to allow law graduates to qualify in the country;
- Due to the need 1) to quickly produce graduates to work in the country in key fields and 2) the lack of qualified teachers the course of Economics and Management was restructured to produce in 3 years time a "Bachelor" graduate able to work in factories, planning services, banks, etc. The Faculties of Engineering and Sciences made efforts to compress their 5 year courses as did Veterinary, Agronomy and Biology. The Faculty of Arts also had a 3 year *Bacharel* course for History, Linguistics and Geography. The new Faculty of Law utilized a 2 year *Bacharelato* course of Law for graduates able to work in courts and related services all over the country.

Johnston notes (1984, p. 67) that during this period 449 students graduated in 18 course areas, 221 at *Licenciatura* level, and 228 at the *Bacharel* level;

- The University introduced a 1 month working period - during July, with academic scores, where students would, under the supervision of teachers and other members of University staff, work in factories and in community villages in the countryside ("Actividades de Julho") (AJU) (July activities);
- *Instituto de Investigação Científica de Mozambique* (IICM) was integrated in the University as well as *Arquivo Histórico de*

Mozambique (AHM). Immediately after integration, new centres were opened at IICM: a Centre for African Studies, Centre for Appropriate Technology Use, Centre for Communication Studies, Centre for Ecology Studies and a sector for Archaeology and Anthropology;

- A Faculty named the *Faculdade para Combatentes e Trabalhadores de Vanguarda* (FACOTRAV) ("Workers and Combatants Faculty" in Johnston, 1984, p. 66) opened where special accelerated access three year courses were taught to prepare the students quickly to follow university courses ⁽²³⁾. Johnston, 1984, p. 66) mentions that this Faculty was designed to remedy "as fast as possible" the evidence that the majority of the students of the University at the time were from non-working class background;
- A Scholarship Fund for Mozambican students was set up;
- Fees were no longer paid to study in UEM;
- Access to classes was made available not only to full time students but also to workers who would benefit from a waiver in their jobs to attend classes at the University for approximately halftime every working day;
- An International Cooperation "function" - not yet a sector or a unit or an office, started to work in the Rector's office to deal with all administrative and logistical requirements that International Cooperation would bring to the institution.

In 1977, coming from the III FRELIMO Congress (February 1977), it was decided to change FRELIMO from a Liberation Front into a Marxist-Leninist Party. The development planning for this goal (Mazula, 1995) would work through a National Planning Commission (CNP) with a leading function over all government institutions. CNP would prepare (Mazula, 1995) a national development plan for the modernisation of society and economy. The Education sector was consequently instructed to adopt a central planning

²³ The first students on this sector are mentioned in "official" statistics of UEM during the academic year 1983 and the last students were registered in 1990.

process for all activities and to organise a National System of Education (Mazula, 1995).

In the Higher Education sector of the Education system, where UEM was the only institution, the effects of the FRELIMO congress were expressed through an internal consultative process culminating in a meeting called *I Reunião Geral* (First General Assembly) at the end of 1978. The clear outcome was that a curriculum reform would take place and research projects and activities would all be in line with the country's intended development. In its own way the University was trying to respond to external environment needs.

Why did the University have an unusual "internal" consultative process instead of having it conducted and directed personally by FRELIMO political leaders involving themselves in person in the process? Graça Machel commented on this fact (interview, 1999), noting that in her view it was expected that the University "should think and produce strategies" for the establishment of a national institution and "offer it to the country". The University, having cadres with "higher education qualifications and the capacity to produce and disseminate knowledge", (Machel, interview, 1999) was challenged to think about its own destiny and future alone and without formally established inputs from the other parts of the existing education system.

Arising from that First General Assembly organizational changes were noticeable by end-1978:

- Academic and Finance & Administration Directorates were set up. The Academic Directorate had to coordinate the work of several Committees (for Research, for Staff Development, for Curriculum Assessment and for Extension activities) connecting with the Faculties and Research units of the institution. The Finance & Administration Directorate had to coordinate the work of all service units of the institution - Printing Unit, Social Services

for students including the Scholarship Fund, Construction and Maintenance Unit, Accounting & Finances sectors;

- A Planning Office (*Gabinete de Planificação*) was also set up as well as a Commission for International Relations (*Comissão de Relações Internacionais*) both sectors reporting directly to the UEM's Rector.

Because of the lowest ever number of University students in the academic year 1977, a critical decision was taken not to enroll any more students for the courses of Arts and related fields. For courses of Sciences, students would get their degrees in other countries offering these qualifications (like GDR) under bilateral agreements with those countries. As a consequence it was decided that all who were free from teaching duties should concentrate on the Teachers' Training courses set up at a new "Faculty of Education".

Finally, the "International Cooperation" function was completely new in university affairs. Citizens from foreign countries came to Mozambique to work at the University either on an individual basis (through solidarity organizations) or within bilateral agreements (²⁴). Those teacher, allowed the University to continue to keep courses going.

The role of international cooperation was increasingly important: from initial technical assistance some agencies enlarged their contribution not only with funds for scholarships for teaching staff but also to support research activities. SAREC was among the first agencies to work within this model and in 1978 funds were allocated for research work in the field of archaeology.

²⁴

The first group of expatriates (called "cooperantes") were teachers for Arts and Engineering, under a bilateral agreement between the Governments of Mozambique and Bulgaria. The second group came to Mozambique under a bilateral agreement with the Government of the Netherlands.

2.3.2

The roots of the University financial system

The University financial system was entirely according to the norms and regulations of the Ministry of Finances - which continued to follow the colonial Portuguese pattern and UEM was able to keep its machine going. As some of the administrative staff at the central Finance and Accounting Departments of the University had worked with Portuguese staff they knew all the day-to-day operations. This was a process of learning by making mistakes...

The University continued to have "financial autonomy" in relation not only to the Ministry of Finances but also to the Ministry of Education & Culture. Johnston (1984, p. 67) notes "the University is a semi-independent structure under the "umbrella" of the MEC with its own budget, administration, etc." (25). Because of the magic clause of "financial autonomy" the University was allowed to prepare its budget without having to get clearance from the Ministry of Education & Culture nor contact and negotiate directly with Ministry of Finance officials. Also budget control and all payments continued to be executed by the University without having to render accounts to the Ministry of Education & Culture but only to the Ministry of Finance.

All financial resources required by the University were handed to the institution by the Ministry of Finance on behalf of the Government. There was also a separate bank account for the funds donated by SAREC to the research work in archaeology and later in the Centre of African Studies, which was entirely under UEM's control. A small beginning for what was to become a major parallel donor funding source.

UEM accounts were processed in a one entry system and on a cash/bank basis. The table of expenditures was determined by the Ministry of

²⁵ MEC stands for Ministry of Education & Culture.

Finance and the University would have to account for its assets and liabilities in different registration books. All registrations - at the level of Faculties/Departments or at the level of the Central Accounting Sector - were done manually because forms determined by the Ministry of Finances were not suitable for computer processing at the time ⁽²⁶⁾. All Faculties/Departments had control of their own budget expenditures but accounts were processed at the Central Finance and Accounting sector that kept track of sectorial budgets and related disbursements as well as of the global situation of the institution.

UEM's yearly budgeting process was characteristic of those days: Deans of Faculties with Directors of Research Institutes and Heads of Services would convey to the Rector their demands for next year and the Rector in conjunction with the Director of Finance of the University would work for one week to prepare all necessary documents and information for the budget request to the Ministry of Finance for next year's activity. Requests from all institutions would be presented to the Ministry of Finances around August/September of every year for a fiscal year from January 1 to December 31. The reaction of the Ministry of Finance would be simply to request if necessary more information to understand the University demands and finally to work either on allocating new funds or to change some budget lines.

An interesting characteristic of this process was that while in the official "public" announcements, funds for the University would appear totally in one budget line as "Instituição Subordinada" (Subsidiary Institution), for internal and accounting purposes the University had to follow a detailed table of expenditures scheduled by the Ministry of Finances - this table was wholly copied from the general table used by all public and government funded institutions.

²⁶ Also, computers were quite "a thing" in 1975 and even accounting machines were like dinosaurs at Accounting and Finance - only one machine existed (a NCR 300) and that was used only for payroll processing.

In 1977/1978 the Ministry of Finance issued new regulations for budget control stating that every institution have bank accounts where Government funds allocated for all expenses except salaries would be deposited monthly by the Ministry of Finance. This step represented a tremendous decentralisation move from the Ministry of Finance.

Institutions had to run bank accounts themselves and to present monthly accounts in order to have their bank accounts replenished for the next month's activities. This move did not catch the University by surprise because it was used to those practices with the system and the status coming from the period before Independence.

The way the general budgeting process of the University evolved, was as follows:

- from an "open" request where any institution could request any amount of money, the process changed with institutions having to prepare their budgets within the boundaries of a "ceiling" fixed by the Ministry of Finance and based on the analysis of monthly replenishment and monthly payroll justifications.
- For the Education sector the budgeting evolution went:
 - + from a first step were two "ceilings" were established: for the Education sector and for the University and
 - + later to a "global ceiling" for the whole Education sector and where each sector of education would have a slice of the ceiling amount: until 1986, all funds for the "Higher Education" sector were allocated to the University Eduardo Mondlane.

This "ceiling" mechanism continued to evolve and went from a total "bottom line" amount to a breakdown by three portions: salaries, other recurrent expenses and capital expenses. The capital expenses budget developed according to the same pattern: from an open fund to a fixed ceiling and then to ceilings according to the composition of the costs: Construction expenses, Maintenance expenses, Acquisition of Vehicles and

Acquisition of other Equipment to be inventoried.

Because of the "central planning system", the National Planning Commission (CNP) diluted the role of the Ministry of Finance. This umbrella role was paralleled in every organisation, expanding the mandates of their Planning Offices to unexpected levels. At the University, the relationship with the CNP induced a super-monitoring role of the Planning Office, thus confusing the mandates and competences of the Directorates at the Central Structure of the University as well as the Deans of Faculties and Heads of Service. This process produced a series of highly contentious issues that troubled the smooth operation of the University.

According to the colonial regulations the University had to present its yearly closed accounts to the *Tribunal Administrativo* (Administrative Court), a judicial institution that had the mandate to verify all government and public organisation disbursement of funds allocated by Government. This institution also had the mandate to verify the lawfulness of the recruitment process of every public servant. After 1975 and due to the "revolutionary" atmosphere of the times, the appointment of public servants sometimes became controversial because, in many instances, the people to be hired or appointed did not meet all formal criteria determined by the existing regulations. To overlook the lack of compliance with the existing regulations the Administrative Court was perceived more as a bureaucratic institution than as a Government Auditor; its role was diminished and respect lowered. Because of the lack of influence of the Administrative Court and due to work load of the University Administration, 1978 was the last year when yearly consolidated accounts of the University were presented to the *Tribunal Administrativo*. The government independent audit system broke down.

2.4 Seeds of the future

2.4.1 The national context from 1980 to 1985

In 1980 a national development plan for the next 10 years was presented - *Plano Prospectivo Indicativo* (PPI) (or Indicative Projection Plan, in English). PPI used for its human resources basis the data available from the first National Census (in 1980) (Table 2.2); PPI "was conceived as plan for economic situation adjustment and for modernisation of all society" (Mazula, 1995, p. 170): Quantitative and qualitative goals were defined, giant economic projects based on heavy industry would develop the rural areas aiming in ten years to rank the country at the level of developed country.

Table 2.2

Background data for education in Mozambique						
Description\Year	1973	1975	1977	1979	1980	1983
University enrollment	1982	2433	777	804	1722	2100
Country's population					12130000	
Illiterate population					7261417	
Population with higher education qualifications					4275	
Population with primary education qualifications					2291368	

Source: Johnston, Anton (1984). Education in Mozambique 1975-1984.

SIDA - Education Division documents No. 15, Stockholm, Sweden.

The challenge to the education sector was clear: how would it respond to the demands and needs of socio-economic development of the country?

In 1981 (Mazula, 1995) the Ministry of Education & Culture presented to the National Assembly the general framework for the new System of Education - *Linhas Gerais do Sistema Nacional de Educação* approved by *Resolução No. 11/81* - tailored as for the recommendations of FRELIMO's III Congress. In this document the references to Higher Education are

quite general (Machel, interview, 1999).

In March 1983 the complete "New System of Education" was approved by the National Assembly (Lei No. 4/83) but the references to Higher Education continued to be scarce and general. However, it was stated that university education should, as reported by Johnston (1984, p. 34): "assure a political training guaranteeing conscientious integration into the tasks of constructing Socialism, consolidate a scientific conception of Nature and Society, impart a profound knowledge about the history and current realities of Mozambique, develop a critical spirit, investigative and able to study, work collectively and individually, and apply its knowledge creatively".

While FRELIMO's views prevailed, global political changes were on the horizon. Other political regional factors were affecting and troubling Mozambique's aspirations - on the global side the final leg of the Cold War was in motion and eastern European countries had more difficulties providing support to far countries. At the regional level, Mozambique was providing extensive and visible support to the independence struggle of Zimbabwe and also to the defeat of the apartheid system in South Africa. The effect of an internal war from 1978 with a guerrilla movement launched to fight against "Marxist-Leninist influence" [Mozambique National Resistance (RENAMO)] was the severe undermining of the country's economic and social development.

In 1983 the FRELIMO's IV Congress adjusted its decisions and accepted that "a war economy" should be planned to face the crude facts of reality. Mazula (1995, pp. 171-172) presents data that show how the optimistic views of FRELIMO were brutally confronted with the real facts of life:

- From 1981 and until 1986 there was a real decline of all economic indicators;
- Overall exports from 1980 to 1983 declined 53.6%;

- Exchange terms for international trade affected Mozambique not only through the income of exports but also all incomings of the national treasury;
- The damages of the internal war during the period 1980-1985 were USD\$5.5 million dollars and amounted to three times the complete and total production of the national economy in the same period;
- The South African government decided to restrict the employment of Mozambicans on the gold mines of the Rand area;
- Defence expenses amounted to 42% of the total national budget (in 1986).

2.4.2

UEM from 1980 to 1985

The first five years of post-independence University life were devoted to establish feet on the ground and strenuously to keep the institution open providing services to the public not only for prestige reasons but also as an invaluable national resource. The second five years of life focused on developing its own identity and creating its own working capacity. The names of the three regular functions of "teaching", "research" and "extension" (²⁷) started to be included in the common language of university staff and concerns about what to do in every domain started to grow.

There were, however, fewer concerns in people's heads about *how to do* than about *what to do*! There was a sense in the air of "having the power to create new things and make things happen..." which certainly came from the political ambience where everything would be assessed by the FRELIMO party and where the "common good" would unite everybody around the same objectives. The FRELIMO structure inside the University kept its organisation and activity, and its influence continued to be exerted in all spheres of University activity.

²⁷

In a straight translation from Portuguese to English.

The development of qualified Academic Staff took first priority in the internal strengthening process. During this period the first members of academic staff initiated their graduate studies abroad - in GDR, in Cuba, in Portugal and in England. The influence of the political structures of Frelimo was crucial because Frelimo "militants" were the first to embark on this process.

Curriculum revision of all courses began (Lopes, interview, 1998), according to a planned system monitored by the Academic Directorate. There were consultations with sectors of industry and economy who would later employ University graduates. The July activities period, where students performed activities outside the University in enterprises, became internal to each Faculty. This move was key for assimilation of the concept that there was a constant need for the university to link to production and economic world that existed outside the walls of academia, since faculties had good knowledge of relevant external organisations.

During this period, all teaching efforts of UEM were focused on the teachers' training courses as described earlier (see Table 2.1).

The crude reality of life within a country that was spending vital resources in the internal war, and therefore not allocating them to the productive and social sectors of the economy, for education and research, led people to look for immediate and practical solutions. For example it became very difficult to travel outside the main towns, dramatically constraining University activities. Agricultural field work, community health work and important research had to be constantly re-organised, for example.

Meanwhile, "competition" and "tension" affected the relationships between the Planning Office of the University and the mandates of the Academic and Finances & Administration directorates as well as the mandates of the Faculty Deans and Heads of Services; different concepts of the

organisation started to be discussed: whether to have a "departmental" university or to have a "faculty oriented" institution.

To adjust the institution to the decisions of the III FRELIMO Congress and to appease those who wanted stronger central planning, the Rector embarked on a new internal consultative process called as "*II Reunião Geral*" (Second General Assembly) (in November 1982). The Second General Assembly was held at a period where tensions clearly existed between staff. Some had a vision of the world based on a technical/bureaucratic approach of adjustment of the available resources to the planned activities - "to plan is to define and monitor the accomplishment of quantitative goals" as mentioned by Mazula (1995, p. 167). Other staff members had the vision that a continuous dialogue should take place between society and the educational institutions leading to a development process towards progress and modernization. The final decisions of the Second General Assembly were strongly drawn from the first view described and they shaped UEM's life for quite some time.

In the context of decisions of the Second General Assembly (from whose documents quotes are taken), UEM was defined (Mondlane, 1982a, p. 1) as having a social function (today it will be called "vision") that would be fulfilled through engagement in the "general process that the Mozambican people are taking on fighting against under-development, for the Mother Land defence and for the building of socialism in the People's Republic of Mozambique (...)" . In the decade until 1990 the University should become a "socialist university" (Mondlane, 1982a, p. 1).

The active agents on the education process developed by the University would be (Mondlane, 1982a, p. 4): "the faculties (...), the support services and the Mozambican Youth Organisation, those two complementing the role of the faculties".

A summarised description of the main themes under discussion - as in the

synthesis document of this event (Mondlane, 1982a) is presented:

- A full curriculum revision should be completed by the middle of 1983 of all courses containing "general" contents (35% of the direct teaching load) + another package of "basic specific" contents related to the course subjects (25% of the direct teaching load) + a final package of "specific" contents related to the course subjects (40% of the direct teaching load);
- A completed course would lead to a *licenciatura* degree with an average teaching load of 4500/5500 hours. The Medicine course would have a complete teaching load of 7000 hours;
- Students would be enrolled in the University directed by a joint Education Ministry and CNP Committee to follow particular higher education studies;
- Diagnosis tests would be applied to new students to detect educational weaknesses and to provide remedial courses to solve those deficiencies;
- After hours and distance education courses would be opened in the future;
- Courses would be opened or re-opened and registrations accepted according to the timetable scheduled in Table 2.3:

Table 2.3

Preview of UEM courses enrolling students

Courses	1983	1984	1985	1986/1990
Faculty of Engineering:				
Civil Engineering	***	***	***	***
Electrical Engineering	***	***	***	***
Mechanical Engineering	***	***	***	***
Chemical Engineering	***	***	***	***
Geology		***	***	***
Mining Engineering		***	***	***
Metalurgical Engineering				***
Industrial Engineering				***
Faculty of Agronomy:				
Agronomy	***	***	***	***
Forest Engineering	***	***	***	***

Courses	1983	1984	1985	1986/1990
Faculty of Economics: Economics Management	***	***	***	*** ***
Faculty of Medicine: Medicine	***	***	***	***
Faculty of Veterinary: Veterinary Animal Production	***	***	***	*** ***
Faculty of Education: Education (Teachers Training) Education Sciences Psychology Pedagogic Sciences	***	*** ***	*** ***	*** *** *** ***
Faculty of Sciences: Physics Chemistry Mathematics Biology Geographical Engineering Geology Geophysics Computer Sciences Statistics & Operational Research		*** *** *** *** *** ***	*** *** *** *** ***	*** *** *** *** *** *** *** *** ***
Faculty of Law: Law		***	***	***
Faculty of Arts: History Geography Linguistics			*** *** ***	*** *** ***
Faculty of Architecture & Urban Planning: Architecture & Urban Planning			***	***

Source: Universidade Eduardo Mondlane (1982). II Reunião Geral - Linhas Fundamentais do Desenvolvimento da U.E.M. na década 1981/1990. Maputo, Mozambique.

- Research and extension activities had also to be screened by the UEM's community;
- The qualifications of academic staff, received 6.25 pages of attention (out of 33 pages of decisions and instructions) (18.9% of the total text) in a chapter on this important subject; Projections were previewed as in Table 2.4.

Table 2.4

Goals to be achieved on the composition and qualification of UEM's academic staff

Academic qualifications	1982	1983	1986	1990
With Doctoral degrees	2	3	15	85
With "Licenciatura" degrees	52	62	135	265
With "Bacharel" degrees	16	20		

Source: Mondlane, Universidade Eduardo (1982). II Reunião Geral - Linhas Fundamentais do Desenvolvimento da U.E.M. na década 1981/1990. Maputo, Mozambique.

- Other themes covered the development of staff policies for administrative and technical staff, supporting services for students and staff and finally the organisational structure and the physical infrastructures of the institution;
- The organisational structure of the University incorporated the concepts of "Central" and "Peripheral" nodes of activity where the "Central" would be the ones under the Rector's umbrella or near the Rector's Office and the "Peripheral" nodes would cater for all Faculties and Services. Table 2.5 presents a simplified view of the new organisational structure of the University as it was envisaged in November 1982;
- The infrastructures to be developed and managed during the planned period were described in just 2.5 pages of text. The importance of the themes and ideas can be quantitatively presented from the main document of this assembly:
 - 33 pages of text (including a blank 0.5 page)
 - 2.25 pages with the introduction
 - 7 pages approaching the "teaching" function and issues concerned

- 7 pages with issues relevant to the "research" and the "extension" functions
- 6.25 pages with the issues pertaining to the development of academic staff
- 1.5 page approaching other staff policies
- 2 pages covering the academic supporting services for students and staff
- 7 pages dealing with the organisational structure and the infrastructures of the institution;
- It can be seen that very little space was given to infrastructure, support systems and the academic administrative relationship. The overarching "strategic" was included but the "how to do it" was much less clearly discussed. Strategy took precedence over implementation;
- Among the new sectors it was declared that a *Gabinete de Projectos* should be set up "to coordinate and supervise the implementation of "obras" for the institution as well as international projects that do not have direct relation with academic work and also overlooking the development of the new premises for the University". What was done by the Gabinete de Projectos, later called as *Gabinete de Estudos e Projectos* (GEP) ⁽²⁸⁾, is described in Chapter 4 of this thesis.

Table 2.5

Organisational development

Central Structure

- * The Rector
- * Academic Directorate:
 - Academic Inspection
 - Academic Staff Division
 - Research and Extension Division
 - Pedagogical Division
 - Student Affairs Division
 - Editorial Unit of the University
 - Division for Pre-University Courses and Workers and Combatants)

²⁸ The first Director of GEP was Célia Diniz (CDiniz) who had been in this role since December 1982 until December 1992 - at this time GEP was integrated in UEM *Direcção de Finanças* having CDiniz as Director of Finance.

- * Planning & Economy Directorate:
 - Audit Unit
 - Planning Division (replacing the old Planning Office)
 - Finance Division
 - Staff Division
 - Stocks Division
- * A new Directorate should exist named as "Services Directorate" with:
 - Division for Transports & Communications
 - Printing Division (that would articulate with the Editorial Unit of the University),
 - Cooperants Supporting Division and
 - Construction & Maintenance Services Division.
- * Rector's Office
- * Legal Office
- * Office for International Relations
- * Office for Projects ("Gabinete de Projectos")
- * The Division for Food and Accommodation for students would remain being directly dependent from the Rector
- * A new Centre for Scientific Instrumentation would be launched, also being directly dependent from the Rector.

Faculties

- * A Faculty for Pre-university training for Workers and Combatants
- * A Faculty for Exact & Natural Sciences with the resources at the time existing in the areas of Mathematics, Biology, Physics, Chemistry and Geology
- * Faculty of Social Sciences with the resources of Law, Economics, History, Geography, Archeology & Anthropology, Arts, Marxism-Leninism and the Centre of African Studies
- * Faculty of Architecture and Urbanism
- * Faculty of Agriculture & Animal Production + Forestry Sciences with the resources of Agronomy and Forestry and also Veterinary
- * Faculty of Earth Sciences with the resources of Geology (first going to the Faculty for Exact & Natural Sciences) and the Mining Engineering area.

Source: Universidade Eduardo Mondlane (1982). II Reunião Geral - Linhas Fundamentais do Desenvolvimento da U.E.M. na década 1981/1990. Maputo, Mozambique.

In April 1983 (Mazula, 1995) the IV FRELIMO Congress declared the end of Marxist-Leninist influence. This was connected not only to the existence of the internal war (and the support provided by the "apartheid" regime of South Africa) but also because the support of "socialist" countries was diminishing. The anticipated end of the Cold War and the emergence of a market economy were on the horizon.

The changes that soon began to be made in the country's macro economic and social frameworks were not at all consistent with the ideology that had existed until that moment. Mazula suggests (1995, p. 176) that from this period "a national economic class starts to emerge - the national

bourgeoisie - cradled on the political power privileges and the consequent prestige. This group, in alliance with the international economic groups, is going to make strong pressures on the Party, in the IV Congress of 1983, to move to a liberalisation of the economy. This group triumphs in 1986 when the Government signed an agreement with the IMF and the World Bank, this agreement being ratified by the V Congress in 1989".

The above paragraph shows in a nutshell the essence of the modifications of ideas, aspirations and motivations on which the prevailing ideology and the consequent education system had to stand on.

Clearly, at the end of 1984, the importance and the authority of central planning methods was diminishing. At the university, Faculties argued constantly about the instructions and norms issued and clear tensions existed between the "central structure" of the institution and the other sectors.

In 1984 and following some months of work, the First Education Project prepared by The World Bank and funded by the International Monetary Fund (IMF) was set up ready for implementation: UEM was covered through the Faculties of Engineering and Economics. The preparation of this project brought to the institution a number of new issues: a number of ratios and indicators from the university's performance were requested from all sectors covered by the project. Instead of having only the "central" structure of the university dealing with these indicators and planning issues mainly through the *Gabinete de Planificação* all affected sectors began to be forced to think about such themes. This time it was the Faculties of Engineering and Economics that were mostly involved in such processes and discussions about "efficiency" and "effectiveness" of the teaching process. Academic staff began to tackle subjects that previously had been highly centralised.

Fernando Ganhão tried to bridge the "old" with the "new" views of the FRELIMO Party at the University of the complexity and intricacy of which he knew only too well. He was very much between the rock and the mountain: On one side was the FRELIMO Party and the "old" and "new" wings of opinion. On the other side the University FRELIMO militants, all young, with academic qualifications higher than anyone else in the country, eager to have their opportunities in the years to come. His leadership started gradually to be seen as a constraining factor as the University progressed towards the "new future". His mandate became harder and harder as the winds of change blew - and his appointment to the University was more and more dependent on his political influence inside the FRELIMO structures. But Fernando Ganhão, despite all the difficulties, and mainly due to his own firm but conciliatory vision of the world and the education processes, was able to keep the University open, provide classes, start research on national interest subjects, initiate the development of academic staff for the institution, open new centres of discussion and debate and keep the administrative and financial operations in place in a time when no role model institution existed and everything had to be built from the first block.

2.4.3 UEM financial system from 1980 to 1985

During this time the University financial system both for internal (within the institution) and external (relationship with the Ministry of Education & Culture and Ministry of Finance) use continued to work as before.

The SAREC funds that were kept at IICM passed to GEP. This unit continued to process the same one file/one entry manual accounting registrations in existence. This small change to two parallel systems was a precursor of bigger changes in the early 1990s.

2.5

The consolidation years

2.5.1

UEM from 1986 to 1990

This was clearly a transition period for the University. The internal war was gradually invading all spheres of life with security concerns but also decreasing financial resources. UEM had to adjust to the financial resources available but also adapt the curriculum, teaching process and research activities to the real field situation - field activities during this period required many adaptations to ensure not only that they would take place in proper educational conditions but also to take account of security issues. The prospects of a society of wealth and tranquillity, expected in 1975, were taking much longer than anticipated to arrive in people's hands. Shortages of many things (food and medicine, raw materials, consumables, etc.) afflicted everybody and all institutions in the country.

At the end of 1985 a new Rector was appointed by the President of the Republic to the Eduardo Mondlane University. While a nomination was expected to replace the first Rector (who had been in his position for 10 years) the appointment caught the pressure groups of the institution by surprise: Rui Baltazar dos Santos Alves (RBaltazar) was named. He came from a different background from his predecessor. A lawyer by profession and a law graduate of the *Universidade de Coimbra*, RBaltazar had been a FRELIMO militant for many years. He stayed in Mozambique, practising law and defending FRELIMO militants who were caught by the Portuguese political police.

At Independence he had been appointed Minister of Justice and worked to change and adapt the system to the demands and exigencies of a new and independent country; later he was appointed Minister of Finance where he kept financial rigour. RBaltazar was described by Machel (interview,

1999) as a person concerned with "the rigour of the way of doing things". Also he was able to "(...) take advantage of the existing knowledge on the way to do the business and insist on those practices until they become part of the system"; finally, in any structure under his command it would be possible "to know at any moment who is in charge to do this and that and things should be done well!"

The challenge for the new Rector was to adapt University views and practices, without political crisis, and to move softly from "revolutionary" times to a regular and sustainable mode of functioning. This required not only a cultural/education approach but also an administrative comprehension of the processes in place. He was a "how to do" Rector.

During this period no clamorous meetings took place and extremes had no place. This was the season to complete and institutionalise by law all the practices of the institution and its relationships with any other institutions outside UEM. The University timidly was coming out and relating to other institutions in the country, getting insights from them but also contributing to their work with adequately trained graduates. Olsson (1994, p. 46) characterizes the period of 1986 to 1990 as "a period of careful expansion of the university (...)".

In September 1986 President Samora Machel died in a plane accident - the whole country and the University were shocked and anxiety arose about who would be the new FRELIMO President as well as the new President of the Republic. Joaquim Chissano was appointed for both positions and UEM's community was relieved: JChissano had always shown a great interest and respect for Education and Higher Education affairs and his consensual style would not destroy the changes taking place in the University.

The appeasement of the relationship between UEM and the outside world, while keeping intact the values of the institution, was hardly tested in

the middle of 1987 when a strike, by UEM students protesting against living conditions in UEM hostels, shocked the whole country. The UEM student protest, where there was a clear refusal to attend classes for some days, showed RDaltazar's courage in facing students and also FRELIMO high level politicians, some of them acrimoniously suggesting that police forces invade UEM to force the students to attend classes. The crisis was finally solved through an intense and new (at the time!) style of dialogue and exchange of information and also of openness of the institution to present its difficulties and suggest solutions to solve the student's demands.

UEM internal affairs and functioning, during this period, can be summarised as follows (Lopes, interview, 1998):

- The students enrolment trend was showing a recuperation towards expansion in the number of students and the new courses started to be substantially prepared;
- Teaching staff who had embarked on post-graduate programs abroad started to come back after completing their degrees - the first Ph.Ds came back as well as the first Masters' graduates. The strengthened competence of the national teaching staff and the prospects for having research activities led by Mozambican staff in connection with other universities either in the region or in other parts of the world gave an impetus to research activities. As a consequence, discussions about the capacity and services provided by libraries and other supporting services (press, laboratories maintenance, procurement services for acquisition of equipment and supplies) towards solving their needs were taking place;
- The closure of the Workers and Combatants Faculty as well as of the teachers' training courses in 1986, with the opening of the Higher Pedagogical Institute;
- Sound and contractual relations were established with foreign organisations and donor agencies;
- A systematic review of all University practices and operations was

- performed to make sure that they were all conforming with existing national laws and regulations. This process affected mainly the administrative and technical staff as well as the academic in order to have them operate according to the public service regulations;
- Because of the absence of any regulations on the National Education System for the Higher Education component and the absence of any "Lei do Ensino Superior" (Law for the Higher Education System) RBaltazar laid the foundations for the Statutes of the University Eduardo Mondlane;
 - A streamlined process of all financial operations was tried out so as to have less nodes of disbursements and consequently fewer control points;
 - A beginning was made to establish a leadership within the University based on academic merits and not just political standpoint.

RBaltazar's leadership period was a cool and composed season of University's life where individuals stressed by the 10 previous years of a passionate process reunited with the institution's core aspirations and experienced a pause for the new challenges to come.

2.5.2 UEM financial system from 1986 to 1990

1987 was the first year of life of Mozambique in the framework of a Structural Adjustment Program (SDA) prescribed by the IMF and The World Bank and agreed by the Government of Mozambique. This new environment raised apprehension and a sense of uncertainty - after years of contempt and criticism about capitalist values here is a country embracing the economic model it had denied since independence.

The impact of the SDA and consequent restructuring of financial methodologies at the macro-level was finally visible for the University. The process of preparation of the yearly budget had now to take into

account the consolidated funds allocated to the Education sector. So, better coordination had to exist with the Ministry of Education and with other levels of the Education system. At the same time, the influence and authority of the CNP was diminishing in favour of the Ministry of Finance and the National Treasury, where the budgeting directorate came to play a major role in the preparation of the yearly national budgets.

In 1990 and for the preparation of the 1991's yearly budget all government funded institutions were requested by the Ministry of Finance (by now leading the CNP staff) to prepare their budget proposals to include:

- yearly detailed plans of activities;
- income expected from services and other sources of activity
- provision of government funds (already determined by the Ministry of Finance);
- all resources in kind and in money coming from international cooperation. These were not usually declared to the Ministry of Finance;
- a three year projection of activities combined with the resources confirmed for that period (only agreed international donations were relevant).

This new way of preparing the yearly budget caught all institutions around the country by surprise. All were used to present plans of activities and request funds to Government.

UEM was the first institution to present its budget according to the requirements prescribed. The main reason was the information assembled at GEP; the ability to work with available economic and financial information and to translate it to the norms prescribed by the Ministry of Finance. This was the first time UEM had a clear and almost total picture of the size of its full operations. In economic and financial terms this was, certainly, a turning point in the way UEM looked at

itself and evaluated its own activities.

UEM accounts and financial operations continued as before: the Planning & Economy Directorate dealt with the funds received from Government, whilst GEP dealt with the foreign funds received in cash mainly for research activities.

But because of the budgeting process determined by the Ministry of Finance, the interaction between the two units was greater than before. Each one benefited from the information they had. Merging of that information enabled the institution to provide prompt and ready answers to the national institutions.

2.6

The road to modernization from 1991 to 1993

2.6.1

UEM's main features from 1991 to 1993

In the early 90s the University entered a new life cycle where, for the first time, its Rector did not come from the FRELIMO historical leadership but had a different background and life perspective. Narciso Matos had a degree in Chemistry from UEM and a Ph. D. from Humboldt University, in Berlin, GDR. At independence he was a student in the final years of his course and completed it while Fernando Ganhão was UEM's Rector (²⁹). His work experience had all been related to the University where he had not only been a teacher and done research but also had been Head of Department and Science Faculty Dean.

There is a difference in how a person looks at an institution where they have studied and worked. As a student, the perceptions of hierarchical lines and ways to assess situations, find answers and solve problems are

²⁹ Narciso Matos was among the FRELIMO militants who had been involved actively in the functioning of UEM Party structures - see footnote 21 in this Chapter.

different from the perspectives of an employee. Also, when the person has had work experience in various units of the institution, this comprehension will differ from the perception of someone who has worked at the "central structure" of the same institution. Narciso Matos, now in a leadership position, having been at the institution in various positions (student/teacher and researcher/with managerial functions), was challenged to take the institution to a different harbour from his predecessors.

At national level the consequences of the internal war were so complex that a negotiation process between FRELIMO representatives and the contender RENAMO representatives, with the Catholic Church and other mutually agreed parties as mediators, had lasted for more than two years leading to a Peace Agreement that was signed on 2 October 1992. The peace process and its official statement changed completely the country's scenarios. A new Constitution Law was drawn up in 1990 and a multiparty, democratic post-cold war society, as in the modern contemporary world, was envisaged to be installed in Mozambique.

The shape of Southern Africa development was also changing dramatically: the end of South Africa's apartheid regime was clear with South Africa no longer being an outcast.

The world too, was different: there were no longer "two blocks" but only one entire world within which to live and die. The outcomes of the "globalization" process were still to be completely understood by the regular Mozambican citizen but, yet, everybody perceived that the future would be very different from the past.

In this context the role of the University would have to be dynamic and agile: Matos states (1993, p. 1) in his vision for the university's institutional objectives of "professional training, applied research and skilled service that in pursuit of its mission, UEM presently plays (...)

a vital role in Mozambique's economic, social and political development efforts. The graduates it produces in the 1990's will manage the country's affairs through that decade and beyond. UEM trained economists will be called upon to develop and implement national economic policy, analyze and negotiate trade and natural resource exploitation agreements, and help manage indigenous economic enterprise. Its engineers will supervise rural reconstruction, insure quality control in emerging industries, and contribute to mining development. Its doctors and community health workers will be charged with re-building a national system of basic health care. Its lawyers will help to insure that the nation's interests are safeguarded in international agreements, and that a rule of law becomes institutionalized within both the justice system and the country as a whole. Its agronomists and social scientists will guide the daunting tasks of refugee resettlement, rural development and agricultural modernization that await the country's attention. At the same time the university must continue to serve as an important cultural crucible in which future institutional leaders drawn from the country's diverse regional and ethnic backgrounds can share their respective heritages and learn to work together".

The above views envisaging an economic and social structure where UEM trained graduates as prime national human resources, were combined with indications that new higher education institutions, with private funding, would be opened soon ⁽³⁰⁾.

UEM continued to attract the interest of a variety of international donors - but the donors' interest in the institution changed from the previous periods: their participation was to be based on University proposals with monitorable baseline performance indicators. Issues of "efficiency" and "effectiveness" of the University's work added a new perspective to the institutions role as "producer" of manpower with academic qualifications at the top of the country's educational echelons.

³⁰ The Catholic Church was willing to open a "Catholic University", with headquarters in the Central region of Sofala. This announcement was made during the Peace

Other concerns like "curriculum adequacy" and "regional compatibility of working and educational qualifications", as well as the "distance education" concept, with a political linkage to contribute to equity in educational access for citizens all over the country, penetrated discussions of UEM's staff.

From the management angle, discussions about whether the "centralised" versus "decentralised" model of governance was to be adopted by the institution increased the temperature within the university, linked to issues of "democratisation" and "transparency".

However, not everything was smooth: the deterioration of the cost of living coming from the national currency's constant and dramatic devaluation transformed the salaries paid by Government as completely inadequate for the needs of a regular family. The morale of academic and all other staff visibly declined, with academic staff constantly neglecting their teaching duties whilst looking for supplementary forms of income through additional jobs like consultancies.

The same currency devaluation effect impacted the real value of Government budgetary allocations to the University. At the end of the fiscal year that period's allocation had a significantly lower acquisition value than at the beginning of the same fiscal year.

National citizens and institutions all had to learn to live in this new environment. All services had to be paid at unsubsidised prices. There was no more exemption of customs for books and equipment imported by the University. National currency had little value in American dollars and rands (South Africa's currency). Previously you had money but nothing to buy; now, you needed to buy but had no money to pay.

Trying to summarise this, there was a major transition from a "looseness"

forced by the security measures of the internal war, to a world without two competing Cold War blocks. Now donors were getting more coordinated. The impact on the higher education system was profound on government and management values. Eduardo Mondlane University had to change.

Student enrolment was forecast to rapidly increase and UEM's capacity to provide a good education was critical.

Concisely, the main events shaping UEM's life were:

- A review of the governance structure was made by The Commonwealth Secretariat, and changes were recommended to make the institution's organizational chart fluid and intelligible. In fact, the last period of 15 years of internal adaptations and adjustments had produced a heavy chart where "boxes over" and "boxes under" were more important than fluxes, linkages and coordination;
- UEM was included in the Second Education Project funded by the IMF/World Bank, and assessments and recommendations were issued regarding "the institution's autonomy and its management capacity - from information flow to computerization policy, from student services to equipment maintenance, and from student performance to physical rehabilitation of the campus" as per Matos words (1993, p. 3);
- An assessment and recommendations on the establishment of the Faculty for Social Sciences was financed by The Ford Foundation with fervent discussions involving UEM staff, and representatives from government and non-government institutions about the desired graduate profile;
- Research activities continued to be significantly funded by SAREC but other donors [like The Norwegian Development Agency (NORAD), the International Development Research Centre (IDRC), and The Ford Foundation] also came on the scene;
- Donors [like the United Nations Fund for Demography and Population Activities (UNFPA)] approached the University to place small

working units (called "projects"), in specific fields of knowledge, linking UEM with institutions working in the executive on the same issues;

- A new curriculum revision was to be finished by 1992;
- By 1993, all courses that had existed at the time of Independence, were restored functioning full time;
- Academic staff continued to be enrolled on career development schemes and a number of Ph.Ds' and Masters were gained in foreign universities;
- Students from every region in the country were enrolled, and those with no income to pay for their tuition or maintenance were supported by The Swedish International Development Agency (SIDA), NORAD, The Australian International Development Assistance Bureau (AIDAB) and national Government scholarships;
- Foreign teachers were collaborating with UEM under technical assistance schemes or under countries bilateral agreements but their work was more confined to academic work and less to administrative and managerial tasks than in the first years after 1975;
- Some action to improve the qualifications of non-academic staff working in libraries, laboratories and other administrative functions started;
- UEM decided to produce an Annual Consultation meeting to respond to the variety of resource inputs as well as to report properly to the providers of all resources. A consolidated report on the use of funds would be distributed as well as plans for the next year of work;
- The jewel in the crown of this period was an expanded consultation process taking place inside UEM walls (details in Chapter 3). This process was different from "consultation processes" that took place in the end of the 1970s and early 1980s. The process was consensual and openly collected suggestions for the better functioning of the institution. This process, clear to UEM's

Rector, culminated in a strategic plan prepared inside the institution and named "Presente e Perspectivas" (Present & Perspectives) valid for the period 1991 to 1997.

Matos said (1993, p. 3) that the "strategic plan sought to update and explain the university's mission to government at a time when economic policy and political changes were creating a new operating environment in Mozambique. It also responded to a concern that considerable donor assistance was being given to the university without an institutional plan to guide its application". The strategic objectives of the plan, as reported by Matos (1993, p. 3), were:

- "To stabilize the institution by tackling the main causes of problems affecting academic and administrative staff;
- To improve the learning and living conditions of students;
- To increase the quality of teaching, research and support services, with priority given to disciplines deemed critical to the country's present stage of development;
- To expand graduate output by improving internal efficiency and making more effective use of available capacity; and
- To seek a nationally representative student body in terms of gender, class and ethnic background".

The Strategic Plan was presented in the 1st Annual Consultative Meeting (1991) which also attempted to present a consolidated report of activities for the previous year.

The preparation of this report was a learning experience for the institution:

1. No such report was ever done before;
2. The financial data to integrate the report was fragmented and dispersed because of the nature of the accounting system of the

university. It remained as in 1975, mainly reporting on government funds and not including all the values of technical assistance and all assistance in kind provided by other donors;

3. It was not surprising to find international activities taking place which were not well integrated into the Office of International Relations and/or GEP.

The University organisational structure changed from December 1992 (Table 2.6 summarises it) to streamline the management of the institution. The next Rector would be appointed from a list of 3 names presented by the University to the President of the Republic. A University Council would assess the Rector, the 2 Vice-Rectors now in place, members appointed by Government and members elected by the University community, members from the entrepreneurial community outside UEM and members of civil society recommended by the Council itself. The Academic Council of the University would contain the Rector, Vice-Rectors, Faculty Deans and Directors for Planning and Academic Management. Faculties would have their corresponding Academic Council and would be organised in Departments and Sections.

Table 2.6

Organisational development

Central Structure

- * The Rector would be assessed by a University Council and an Academic Council
- * Vice-Rector for Academic Affairs:
 - Directorate for Academic Planning and Management
 - Academic Registry
 - Scientific Directorate
- * Vice-Rector for Administration & Resources:
 - Office for the University Premises
 - Finance Directorate
 - Human Resources Directorate
 - Administration Directorate
- * Academic Directorate
 - Academic Inspection
 - Academic Staff Division
 - Research and Extension Division
 - Pedagogical Division
 - Student Affairs Division
 - Editorial Unit of the University
 - Division for Pre-University Courses and Workers and Combatants)
- * Rector's Office

- * Office for Public Relations
- * Planning Office

Faculties & Centres & National Archives

- * Faculty of Agronomy & Forestry Engineering
- * Faculty of Architecture & Physical Planning
- * Faculty of Biology
- * Faculty of Sciences:
 - Department of Physics
 - Department of Chemistry
 - Department of Geology
- * Faculty of Mathematics
- * Faculty of Economics
- * Faculty of Law
- * Faculty of Engineering:
 - Department of Civil Engineering
 - Department of Electrical Engineering
 - Department of Chemistry Engineering
 - Department of Mechanical Engineering
- * Faculty of Arts:
 - Department of History
 - Department of Geography
 - Department of Linguistics
- * Faculty of Medicine
- * Faculty of Veterinary

- * National Historical Archives
- * National Coin Museum
- * Natural History Museum
- * Centre of African Studies
- * Centre for Habitat Studies & Development
- * Centre for Engineering Studies
- * Centre for Electronics and Instrumentation
- * Computer Centre
- * Marine Biological Station

Source: Mondlane, Universidade Eduardo (1992). Prospectus 1992-1993.
Maputo, Mozambique.

As an outcome of the restructuring process the former GEP Director (Célia Diniz) was appointed as Director of Finance and was in this position until November 1992.

The implementation and consolidation of the internal processes of administration and management of the institution permeated the life of the University for the next 2 years. However, the development of firm administrative and procedural changes did not happen in synchrony. The ability to develop a strategy plan depended on consensual skills, ideas and planning that had been developed by the young Mozambican staff since

independence. But there had not been the same attention to day-to-day administration and operation, neither were there enough skilled administrative staff. Finally, there was no absolutely clear cut acceptance of the key role of administration in supporting the process of strategic change.

In November 1992 Eduardo Mondlane University celebrated 30 years of life. In a written statement for the Prospectus for the years 1992-1993, Narciso Matos commented (Mondlane, 1992, p.3) that "as a Rector and a teacher, I feel that the University, in the 17 post-independence years, has fulfilled its duties to the Nation with zeal, commitment and initiative". But he certainly was aware of the future. He mentioned that the University functioned in a period characterized by a constrained economy in deep crisis. "In this period there is the occurrence of two opposite phenomena: on one side there is a clear resource crisis (for salaries, current expenses and investment), a crisis in stability of involvement of teaching staff, researchers and administrative staff, in short, an institutional crisis as well as in the society at large; on the other side this was a period with perspectives and potential to solve the crisis and to develop the institution - as in "Present & Perspectives," as in the studies for autonomy and university management, as in the growing number of students (expected to double by 1996) all this based on the near end of the war as a prerequisite for the country's progress where UEM is certainly included".

With prudent words Matos was facing the reality and consequences of the shortage of resources as well as the transition to a new economic model with its implications for people's behaviour and attitudes. He was aware that as well as ideas and visions, institutions were made alive because of the people who are in them.

Narciso Matos' leadership took place in real "times of change" where the first impulses of the globalization processes around the world were

arriving to Mozambique, mixed with the difficult articulation of the "peace process" after approximately 15 years of a devastating and destructive internal war, where a vast array of infrastructures were destroyed with an enormous and silent amount of human suffering. Citizens, concerns and values were different from those existing at independence and the role of the university and the higher education in a developing country like Mozambique was not readily disguised - should it continue to be like Samora Machel's statement of 1 May 1976 quoted earlier. What should be the adjustment to the new technological and political background environment? What should be left out and what should be taken in? This was a time for questions without final and tested answers!

2.6.2

UEM financial system from 1991 to 1993

The accounting system and financial practices of the University continued as in the 1980s, but began to be stressed by the number and variety of donor funds available and imperious demands to have them duly accounted for reporting purposes, within a time line schedule that was not at all compatible with the general time line defined by the Ministry of Finance.

Coming out of the new trends, Coopers & Lybrand Associates were requested via tender to execute an audit of UEM accounts, to review and make recommendations for improvement of the existing accounting and financial systems.

During the second Annual Consultative Meeting (middle of 1992) a representative of Coopers & Lybrand Associates Ltd made a brief description of the status of the financial system at UEM and the recommendations made to improve the system in order to (Coopers, 1993):

- change the accounting system to a double entry system and to put it in place for all sectors of the institution;
- change current policies and practices of the institution regarding

income & disbursement, procurement & acquisition and other supporting practices and registrations.

- have an information system for financial/accounting purposes.
- have clear policies and practices for hiring personnel and for development of human resources.

The details of the recommendations and its implementation are described in Chapter 5 of this thesis. But, definitely, what should be mentioned here was the shock of the University authorities to see that big changes would be needed to ensure that the institution was able to manage available resources in an effective manner.

2.7

Conclusions

In this Chapter a general black & white portrait of the Eduardo Mondlane University over a 31 years period was presented.

In the 20 years (1973 to 1993) that I have lived and worked inside the film of University's life sketched out above, I obtained a strong sense that the institution had its own synergies. And these forces went well beyond any "political" background or framework - the university was always a place of higher learning providing facilities for teaching and research and authorized to grant academic degrees.

UEM has been able to cross over various boundaries, strengthened by its own personality:

- It has been under two completely different national political systems: from being the *Universidade de Lourenço Marques* set up by a colonial government to being the national university for a modern independent country;
- It was launched to serve the survival of the colonial system educating its African elites and turned into an institution to develop the qualified labour force needed to run the economy of a

new country;

- The institution responded to the country's needs developing courses designed to solve those needs.

It is never possible for the day-to-day operation of an institution, with all its facets and crisis, to match the seeming smooth, worked out, strategies however openly they have been conceived. In the case of UEM, this was also true.

In short, the organization has preserved a certain autonomy and independence in the midst of a range of complex forces. It developed a strong strategic orientation, good commitment from inside the organization and from government. But it needed a stronger means of implementation - a management plan. Similarly less attention was paid to day-to-day administration and operation and in staff development of non-academic staff.

UEM has survived dramatic changes, and in the process has learned how to think about and operate a national higher education system. It always maintained, in all periods, a certain autonomy, whilst maintaining also the support of government.

It learned to plan and to develop relatively open consultation processes towards its strategic development. It developed ways of operating in rather difficult times - including during a war and as its funding base deteriorated and fragmented. The operational systems could never deliver as smooth and flexible a style as the strategic aspects required.

But it is argued that UEM's best performances had always come from conscious choices as the outcome of an internal thinking and discussion process more than just following solutions prescribed by any outside influence: when that method was adopted the "solutions" were sustainable and kept living in the organisation.

3.

The Strategic Plan at UEM

This chapter describes how the first strategic plan was made at Eduardo Mondlane University, its importance within the institution, and also in the process of transforming African higher education in the 1990s.

The chapter starts with the argument that Higher Education Institutions need good management practices to maximize all resources for day-to-day operation, and emphasizes that such practices are in their infancy in African universities. The chapter argues that the concept of "the university" goes back many centuries and those thinking about and shaping African universities have historical experiences to influence their ideas. The chapter introduces the argument that African universities are conceived as both development universities - a notion with a hundred year history - and as African universities, a more recent concept whose practice has been highly constrained by the 1970s and 1980s economic down-turn. Indeed, it was the need to respond to fund shortage and funder diversification that led to the strategic plan initiative at UEM, a process which is at the heart of this thesis and a process which has been crucial in the recent transformation of the prospects for African higher education.

The reasons why UEM embarked on a "Strategic Plan" initiative are first described, then how the plan was built and its final shape. The impact of the "strategic plan" initiative in other southern Africa universities is also briefly mentioned. The uniqueness - despite its "universal" meaning - of the African university and the reason why their management processes need to be deeply rooted and organized in the institution is analyzed.

Finally, the candour of the preparation of the strategic plan of the University in Mozambique calls attention to the endogenous synergy of a

higher education institution that was able to produce a "Strategic Plan" without a theoretical framework and mainly based on intuition.

3.1

The relevance of African universities in their home environments

African universities, due to the nature of their establishment as national institutions in periods of national independence, ideally will always experience the influence of the social and economic. Since they were created in an attempt to give birth to a national cadre of qualified and academically high level citizens, they have been mostly at the centre of their government and public attention. The main consequence of this link has been that the institutions did not need an agreed view and understanding of all practical dealings and processes of managing the institution. Staff were motivated to dedicate all time and effort to make the institution function and deliver services according to what was perceived as the expectations either of government, public and staff.

The need for better "management" processes and supporting systems only became evident when shortage of resources became notorious and decreased funding from government had already seriously affected the institution. As the popular saying goes "in a house without bread everybody shouts and nobody is right!" The popular saying also proved to be true for universities: most of the teaching and support staff were paid according to public tables of salary levels and salaries eroded in terms of purchasing capacity. University budgets had funds to pay those devalued salaries but not to employ more staff nor to cover other expenses for normal operations like equipment, maintenance, building and so on.

To define priorities, get institutional consensus on achievement of objectives and results requires proper channels of dissemination of information. But it also requires capacity to understand and comprehend

processes that must take place ⁽³¹⁾. In short: a new era for management of university affairs had come.

The resource crisis for higher education in Africa was associated with the stringent financial measures adopted by African countries in the framework of loans requested from the International Monetary Fund. Those loans demanded consequent prescriptions aiming to heal economies. In parallel (World Bank, 1994), it must be emphasised that in western countries, since the mid 1980's, an important change in the financing and management of higher education has been driving this sector of education. Issues of efficiency and effectiveness started to influence the criteria resource allocation from Government treasuries. A whole set of performance indicators started to be applied to university "production".

Management practices at universities and other institutions of higher learning in recent years have increasingly been inspired by the processes utilized in the business areas of society. However, some differences exist because of the nature of educational institutions:

- Business ownership is simpler in comparison with the complex "ownership" associated with university mission to teach, research and deliver support for many different types of individuals and

³¹ It cannot be underestimated that the political environment of African countries has changed: In the 1950's and 1960's and even the 1970's the university authorities would certainly have had connections with government while business of the institutions would be left to the discretion of the Vice Chancellors and other presidential authorities outside the institution. Nowadays, modern governance style requires involvement and participation of all levels of staff and student representation.

organisations;

- The mission, objectives, aims and the production outputs of businesses are more easily quantifiable and verified than the "production" from a higher education institution;
- Stakeholders in universities are diversified and subjects are complex.

The "strategic planning" fashion entered the world of higher education institutions after the business world had experienced it. While the business world has already made the necessary adaptations and changes to this management tool, the world of higher education in Africa is still in its infancy regarding the use of this same tool of management.

3.2

African Universities - or "development universities"?

Earlier in this thesis no precise definition and background concepts were provided to underpin understanding of universities in society. This chapter will attempt to provide definitions and concepts as a route to understand how universities operate and what is their role in society. Furthermore, it attempts to highlight the relevance of these concepts to the African context and particularly to the Mozambique case.

In what follows "Universities" are part of the tertiary sector of education defined by The United Nations Organisations for Education, Science and Culture (UNESCO) as quoted by The Netherlands Organisation for International Co-operation in Higher Education (NUFFIC), 1995, p. 19:

"As scientific establishments and centres of learning, leading to theoretical or applied research or teaching;
as establishments offering professional qualifications, combining high level of academic knowledge and skill development, with courses and content continually tailored to the needs of the economy;

as one of the main crossroads for learning throughout life, opening the way to adults who wish to return to education, either to adapt and develop their knowledge or to satisfy their taste for learning in all areas of cultural life;

as leading partners in international co-operation, favouring exchanges of teachers and students, and promoting dissemination of first-class teaching through international professorships."

The above definition will be used not only for universities but also for any higher education institution.

In this chapter a number of sources will be analyzed to provide support for my analysis of the role of universities in developing countries, particularly in Africa as in the case of the Eduardo Mondlane University, in Mozambique. These sources include historical and development approaches, used to give comprehensible contextual background to the complexity which embeds throughout a higher education institution.

..*

Universities have, since their inception in the European Middle Ages, been places of concentrated knowledge and research undertaken in a very selective and close environment. Castells (1993) mentions that throughout history universities have performed four functions that "result from the specific history of education, science, culture, and ideology in each country". At a theoretical level these functions can be identified and applied to all higher education systems:

(i) From their inception (in Medieval Europe) universities have played the role of ideological apparatuses where they were vehicles for formation and diffusion of ideology [in the European tradition of church based universities as in France, Italy, Spain or Portugal or in the more liberal tradition of theological schools of the Anglo-Saxon environment

that gave birth to the liberal arts colleges]. This function has its own internal contradictions because the universities claim that their role is "ideology-free" (1993, p. 71) and objective.

(ii) Universities have also been a mechanism for the education of dominant elites and for the interaction of these elites, the networks that will nurture their cohesion and the clear distinction between those elites and the rest of the society: Castells (1993) presents as examples the rivalry between Oxford and Cambridge or the Ivy League universities predominance in the United States or the formidable authoritarian role of the University of Moscow in the former Soviet Union.

(iii) Only at the beginning of the current technological revolution did the role of universities as producers and implementors of knowledge come to light. Examples are the military needs for World War 2 and the Cold War and the response of the universities generating new knowledge - as in the case of Massachusetts Institute of Technology and Stanford University in the United States.

(iv) The final function historically performed by the universities was to produce the labour force needed for the process of industrialization as well as the expansion of the health and education systems in modern societies - Castells, 1993, p. 72 mentions "large numbers of engineers, accountants, economists, social workers, and other professions" were trained when universities were "called upon to provide both general and specialized training".

The mix of varied functions has made possible the appearance of several types of university models (e.g. the science university, the state-university, the professional university, elite oriented universities, etc).

Castells, 1993 also states that universities are social systems and historically rooted institutions, triggering the understanding that a university is not an institution without a past but inserted in the

present. Its roots are the lens through which it looks to the future.

..*

In the specialized literature, such as in World Bank (1994), higher education systems are presented as accommodating three broad categories:

- (i) an undifferentiated public or "university-based system" consists only of public universities;
- (ii) a "differentiated public system" comprises not only public institutions but also other non-university tertiary institutions;
- (iii) a "differentiated public plus private" system that covers both public and private institutions.

..*

Two schools of thought illustrate different perspectives (Coleman and Court, 1993):

- the first - the liberal school - comes from the experience of the reconstruction and rebuilding of Europe after World War 2 as an outcome of the Marshall Plan, and looks to the concept of "development" based almost exclusively on economic indicators;
- the second school (the developmentalist school) looks at development through human needs indicators economy being one key indicator among many social and human indicators of quality.

The former school embodied strategies and policies of the International Monetary Fund, associated institutions like the World Bank and other lending institutions in the northern financial world. A mixture of the second school's opinions with some performance indicators recommended by the former comprise the policies and strategies of some other interveners in bridging northern and southern countries and institutions ⁽³²⁾.

³² Coming from the developmentalist school "dependency theory" argues that the international system for rich centre-poor periphery relationships creates and

In a results oriented approach, the former school looks to universities for educating future leaders and developing the capacities for economic growth as clearly stated by World Bank (1994). The latter would look to universities in a wider societal approach as places where skilled and educated will acquire skills and develop the required research for national development.

..*

Coleman and Court (1993) in an interesting and complex argument, suggest that universities were and are a reflection and expression of globalisation and cultural exchange between the North and the South. They argue that (1993, p. 1-3) "the process of diffusion and global proliferation of the modern university occurred under its own inexorable dynamic. The worldwide diffusion of the university from its core areas of medieval Europe has been part of those major transformative processes of global change associated with the emergence of a nascent world culture. Many factors and forces have had a role - modern Western colonialism, the rise and universalization of nationalism, the facilitating support of international aid, and the upward strivings and politically irresistible demands of the newly mobilized people throughout the world".

NUFFIC (1995) also touches on the same point when stating that the cultural gap between universities in so called Northern countries and those in Southern countries is not relevant because a significant number of academic staff of southern institutions got their graduate degrees in northern institutions, so being exposed to its culture and expression for quite a number of years.

perpetuates the status of Third World countries - as mentioned by Coleman and Court, 1993, pp. 3-11.

Coleman and Court's assumptions (1993, pp. 1-2) about the globalising atmosphere from which universities are part are underlined when they state that "the emergence of the nation-state as the universally recognized terminal community and the pre-eminent form of human organization of our current epoch has been decisive: the universalization of the sovereign state has assured the universalization of the university" (³³).

..*

The concept "development university" (Coleman and Court, 1993) crystallized the notion that universities were not just places to improve the relevance of teaching and research and to contribute to manpower development. The tripartite role is based on a wider series of implications that comprises a sense of social responsibility and policy relevance. Concern with service delivery and its social commitment should be added to that sense of social responsibility.

The "development university" as well presented by Coleman and Court, (1993) is anchored in three traditions that are rooted in:

- the tradition of the land-grant movement coming from the 1860s in the United States and universities had to be directly engaged in the reconstruction of society and deal with practical development problems in their locality;
- the tradition of the Japanese system where the foundation law of the first national university, in the 1880s, prescribed that the university (1993, p. 296) "must assume the function of teaching, and researching into the inner mysteries of those branches of scholarship and the arts that are of essential importance to those, not society but the state, and the state, moreover, which had adopted development through the importation of foreign forms of civilisation and enlightenment as a high-

³³ In an interesting style Coleman and Court, (1995, pp. 1-3) phrase some concepts under the title of "Globalization of the University".

priority national goal";

- finally the tradition emanating from the Soviet Union and countries influenced by it, where universities were seen as producers of skilled manpower to engage in the sequential Five-Year Plans of development.

Coleman and Court, (1993) indicate four inspirational elements framing the developmental universities approach.

The first two elements come from the universities as institutions:

1. The spontaneous consciousness of university authorities and teaching staff that university resources should be at the service of the host nation. Teaching and research should therefore be compatible with this element.
2. The self-defence and self-preservation of universities depends on a deliberate intention to have a developmental posture due to the size of resources required from government for its functioning.
3. A third element comes from government, that is the interest of governments in graduates working in specific sectors and research that addresses specific development problems.
4. The final element comes from the international donor community where agencies are more inclined to favour the institutions that have activities pertinent to national development and that take a problem-solving approach.

The "development university" was certainly the foundation for the concept expressed by Julius Nyerere in 1966 that became the focus of attention as the concept "African university" in the 1960s (Coleman and Court, 1993, p. 296): "The University in a developing society must put the emphasis of its work on subjects of immediate moment to the nation in which it exists, and it must be committed to the people of that nation and their humanistic goals. ... We in poor societies can only justify expenditure on a University - of any type - if it promotes real development of our

people. ... The role of a University in a developing nation is to contribute; to give ideas, manpower, and service for the furthering of human equality, human dignity and human development".

In 1972, in a workshop of The Association of African Universities, African universities stated that their mission was (Diniz, 1997, p. 1 citing Yesufu, 1973): "A truly African university ... must be one which while acknowledging the need to transform Africa into the twentieth Century, must realise that it can best achieve this result by completely identifying itself with the realities of a predominantly rural ... setting, and the aspirations of an unsophisticated, but highly expectant, people. It follows that the emergent African university must, henceforth, be much more than an institution for teaching, research and dissemination of higher learning. It must be accountable to, and serve, the vast majority of the people who live in rural areas. The African university must be committed to active participation in social transformation, economic modernization, and the training and upgrading of the total human resources of the nation, not just a small elite".

The same concept was behind the vision and tasks given to the Eduardo Mondlane University in Samora Machel's statement of 1 May 1976 (see Chapter 2 of this thesis) which described its future role, function and goals.

..*

The African universities that existed at independence were modelled on corresponding European institutions - some in the former colonial country. The newly created ones, after independence, got inspiration in the northern hemisphere from similar institutions as a means of gaining international and even national acceptance for their activities. At the time of their creation, there were, of course, no concerns about framing

them according to the World Bank categories! ⁽³⁴⁾

African universities, whether already in existence at the time of independence or created after that time, were very much a response of the political apparatuses to the quest for nationalism and sovereignty and also an attempt to build a national cadre of qualified and skilled citizens. But those institutions were too young to experience evolution and adaptation.

The World Bank, 1994 document clearly states that the higher education sector is in crisis throughout the world and relates this crisis to shortages of government funds. This assertion, in Africa, is associated with a call for reform in institutional governance and operating systems. It argues that thus far universities have not adequately responded to the public and to government expectations in the quality of graduates or in the numbers of completing degrees.

NUFFIC, (1995) interestingly emphasizes that there are two spheres of university governance: 1) tackling the issues of definition of institutional policies and development of strategic plans; and 2) the sphere of management and administration.

For this thesis the NUFFIC definition will be adopted because it is of key relevance to the subject of this thesis. We already described UEM's strength in strategy and relative weakness in day to day management and administration.

On top of the initial 'colonial' configuration, newer layers of structures have been added. This results from a desire of African universities to respond to organizational challenges and initiatives from the production sector, from government, or from the international donor community -

³⁴ "Modern" universities were established in Africa in 1948 at Ibadan (Nigeria), Legon (Ghana) and Makerere (Uganda) modelled after the University of London (England). In 1957 a university was set up in Dakar (Senegal) and also a university college in Côte d'Ivoire (UNESCO, 1998). In Mozambique the first higher education establishment was installed in 1962.

directly from foreign agencies and from foreign tertiary institutions. Those challenges and initiatives may come from different directions *inside* the institution (central management, faculties, departments or individuals) or from *outside* sectors. To these complexities are added concerns from senior academics about who "owns" and "controls" the "knowledge" and "projects", resulting in weak management and monitoring and contributing to fragmentation and general inefficiency.

Masuha et al, (1992, p. 4) illustrate quite vividly and with some quantitative data, within a case study from the Faculty of Engineering of the University of Dar es Salaam (UDSM), how the inter-connection of all these interests and actors can contribute to the establishment of an intricate and unmanageable situation, both from the point of view of the higher education institution as well as other partners in the situation.

"The Faculty (...), currently has some 40 to 50 such "entries" i.e. lines of external relations of different scope and level, spread over some 10 donor/partner countries. For the University (...) the figure may well reach some 250 "entries" spread over some 20 donor/partner countries. (...) Each relationship is commendable as to the efforts, personal initiative and immediate intentions. Taken in their entirety, however, the growing number of external relationships

- increasingly obscures the institutional, operational and budgetary scenario, with the national parent ministry not normally aware of the real budgetary needs,
- leads to a distorted picture as to the effective financing of staff personal emoluments,
- complicates efforts for coordinated institutional planning and development with many of the external relations not coordinated in terms of institutional/corporate needs, priorities and timing,
- increasingly erodes the established organizational structures with many external projects not being under the regular institutional control and power but nevertheless operating within the institutional set-up,

staff and facilities, where in turn the external side often argues for an "independent" project because of the eroded overall institutional structures(!)"

The above example demonstrates that it is not easy is to deal with all issues arising from the interests and objectives of funding partners. As a result, the concepts "evaluation" ⁽³³⁾ and "accountability", which are so influential in the credibility and the operation of any institution, become complicated and confusing. This is a particular problem in African universities which have to deal with many funding agencies and various constituencies - students, communities, future employers and government.

Moreover, because of funds shortage and because the majority of the African countries are under stringent budgetary controls, African universities have had to invent initiatives to gain credibility and preference from their governments and the public in their home countries. Devising ways to improve their efficiency, quality of graduates and the results of research work, universities have embarked on strategy plans and plans of action to reshape their governance structure as well as their curriculum and research work and their financial systems.

3.3 Strategic Plan Initiative at Eduardo Mondlane University, Mozambique

3.3.1 How the plan was designed

The case of UEM in Mozambique is historically simple, but beneath that simplicity lies a contradictory intricacy.

As described in chapter 2, in 1975, UEM was shaped organizationally by

³³ Compounded concepts covering the "evaluation" and "accountability" ones are noted by World Bank, 1993, pp. 19-23 and an attempt to clarify the concepts is provided.

the Portuguese colonial system. The lack of qualified people and the enormous tasks ahead left little time for any self-organizational assessment by the institution. Also, the political environment, despite its intention of searching for useful and efficient solutions, had no organizational experience other than "assembling some teachers and researchers together". The governing style of the epoch was not participatory in the modern sense and any organizational initiative needed political approval from the governing party - so, UEM's structures acted in a reactive way to instructions and recommendations emanating from the Rector of the University or from other high ranking authorities.

When Narciso Matos became Rector of the Eduardo Mondlane University in 1990 he certainly had a different approach to leadership practices than his predecessors - his times were different. His predecessors did not face any questioning of the role and influence of the university. The university was seen as a symbol of prestige and national pride contributing to high level skilled manpower and knowledge and ideas. Even if funds were not enough, they always represented a generous proportion of total government funds. But Narciso Matos' times were different:

- Firstly, it was foreseen that the University and the other higher public higher education institutions would not be alone - rumours and strong signals of the opening of new private institutions gave rise to the possibility of the higher education system moving from a "differentiated public system" ⁽³⁶⁾ to a "differentiated public plus private system" ⁽³⁷⁾;

³⁶ Institutions under this system were (Educação, 2000): (i) Eduardo Mondlane University, (ii) Higher Pedagogic Institute, launched in 1985 and under the Ministry of Education, (iii) Higher Institute for External Relations, dependent on the Ministry of Foreign Affairs and (iv) the Marine School of Mozambique, installed in 1985, under the Ministry of Defence.

³⁷ In 1997 the following institutions were in place (Educação, 2000): (i) under Government's supervision and funds allocation - the four institutions listed above, the Higher Pedagogic Institute becoming the Pedagogic University; (ii) funded through private sources - Catholic University and ISPU - Higher Education Institute for Polytechnic and University Studies (a cooperative of individuals and a private Portuguese university) both installed in 1995 and ISCTEM - Higher Education Institute for Science and Technology in Mozambique (funded by a Muslim Foundation) set up in 1996.

- Secondly, the leadership style had to evolve from an "authoritarian" one, mainly based on "democratic centralist" principles, to a modern style of leadership with "democracy and participation" permeating decisions ⁽³⁸⁾;
- Thirdly, NMatos was from the same age group and academic era as the other Ph. D.s at the institution. For him, the leadership function was always a checks and balances exercise;
- Fourthly and last, NMatos had a clear understanding that his mandate would not be significant if he would not be able to raise funds for the institution, its survival depending on massive external fund-raising.

Matos began his activity by trying to make a full diagnosis of the "state of the institution" and recommendations from its community concerning its work. This diagnosis was organised by means of a consultation process with a selected number of individuals from the academic, administration and support staff. They brought experience of all areas of Sciences and Arts and administrative and support systems.

The diagnosis process comprised a number of stages:

- Initially the group brainstormed for several sessions, under the leadership of Matos, to establish a line of thinking around some selected items (e.g. curriculum development, qualification and training of academic staff, research activities, etc.);
- After this stage the group started to be led by Carlos Quadros (who would later be the first Vice-Rector for Administration & Finances) and who was closely supervised by Matos. In this new stage the group split in smaller groups to propose actions to be taken on each item;
- Finally, each small group wrote a list of actions and a tentative

³⁸ The Rector after NMatos was elected through a consultation process inside the institution whereby after a profile and candidacies definition made by a "Search Committee" of academic staff Eduardo Mondlane University, a final list of three names was voted and the results presented to the President of the Republic for appointment.

time schedule for its implementation. Everything was then aggregated into one report for the whole group.

This "family approach" - what could be called a "self-assessment process" - within UEM had two positive outcomes, despite its limitations and personal solutions presented to overcome existing bottlenecks (the shortage of funds being the most evident!):

- It brought into management of the university a group of people assembled to think about issues that were, under previous Rectors, only debated in the atmosphere of the *Grupo Dinamizador de Círculo* - the mouthpiece of FRELIMO party in the University's organizational structure. Now, whatever the party affiliation (s)he could sit in the group on the basis of professional competence, expertise and capacity to contribute to the improvement of University performance;
- To use a new way of establishing communication and information feedback to get ideas and recommendations for the regular functioning of the institution.

These comments come from the thesis author who was involved as a member of the initial group. However, the process was larger and wider than this because Matos was also receiving clear suggestions from donors. They were suggesting that the leadership and management processes at UEM would be much facilitated if he could present a comprehensive and consistent plan for stabilization and development of the institution, a plan that would demonstrate the need for the university to be fully supported by various donors, including government. The plan would need to demonstrate to government the complete potential of the university, not only as it existed, but also as an important asset during the postwar period.

Mostly based on the "family" diagnosis mentioned above (synthesized in a

document called "Perspectives on the development of Eduardo Mondlane University" and reviewed and commented on by all academic departments of the institution), and also on taking the pulse and temperature of donors, two members of University staff were given the task to prepare the plan under the continuous guidance of the Rector (³⁹). The final draft of this in-house document was extensively discussed in all faculties and departments and services and finalised in a meeting that lasted for more than two days, grouping representatives from all sectors. The final document including all sector contributions and the decisions of the Rector received the name of "The University of Eduardo Mondlane: The Present and Prospects for the future" as a "working paper" dated April 1991, (⁴⁰) a designation that attempted to give the reader, from the cover of the document, a sense of action and achievement underlying all actions from the plan. This historically important document came to be known as "Present & Perspectives" (P&P).

Matos, (1993, p. 2) commented that "the draft plan was then used as the basis of intensive consultations with government representatives, particularly the Ministers of Planning, Finance and Education. This was to ensure that the principal proposals of the plan were understood and accepted by government. Key points included the overall financial implications of the plan, and the concept of greater university autonomy that it proposed".

The plan was publicly presented to representatives of government, donors and the private sector during the 1st University Consultative Meeting on 8/9 May 1991.

³⁹ The staff were Álvaro Carmo Vaz (Faculty of Engineering) (former Dean of the Faculty of Engineering, the faculty that historically always had the biggest number of students as well as the bigger number of courses simultaneously opened) and José Rodrigues Pereira (Faculty of Agronomy and Forest Engineering) (Dean of this Faculty for some years and former Director of the National Institute for Agronomic Research at the Ministry of Agriculture).

⁴⁰ Matos (1993) refers to this document as *Eduardo Mondlane University: Present and Perspectives*.

3.3.2

The plan that will stay for history

The next part of this thesis presents a detailed synthesis of the plan to provide a sense of the importance of its content for the transformation of the institution. There are additional comments on the size of the financial resources included in the plan.

The plan (UEM, 1991) has 5 chapters divided into sections. Significantly for such an important document, it was produced so rapidly that it had no table of contents, making it hard to consult! It is also a thick document!

Box 3.1 is a table of contents, prepared by the author of the thesis:

Box 3.1

P&P Table of contents (english version)		Page No.
1.	Historical note	1
2.	The role of the UEM in the development process	5
2.1	The development of University Academic programs	5
2.2	Research	6
2.3	Extension	7
2.4	Consulting	7
3.	The evolution of the UEM and the principle difficulties encountered	8
3.1	The Professoriate	8
3.2	Instructional and Learning Resources	11
3.3	Students' living conditions	12
3.4	School achievement	15
3.5	Research and extension	22
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3.9	Financial resources	27

P&P Table of contents
(english version)

	Page No.
4. The UEM's development strategy from the present to the year 2000	28
4.1 Philosophy adopted	28
4.2 Stabilization of the Mozambican Professoriate and Planning for its growth	29
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4.11 Strengthening the Management Capacity at the UEM	45
5. An appraisal of the Financial implications of the proposed strategy	48
5.1 An estimate of total costs of the various components of the strategy	48
5.2 Summary of costs	51
5.3 University revenues	53
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Source: Mondlane, Universidade Eduardo (1991). *Present & Perspectives*. Maputo, Mozambique..

The first 4.5 pages contain a historical presentation from the institution's creation in 1962. An important element of this part of the text was a summary of the overall values of the institution. It said that the aim after independence was to (p. 2) "instill (...) ethical values to be reflected in (students) professional lives (...) as a consciousness of what it was to be a professional, a spirit of dedication and a social consciousness and awareness of the problems of the most disadvantaged sectors of Mozambican society".

The next three pages, *The role of the UEM in the development process*, argues that UEM should contribute to the country's socio-economic development producing well trained professionals and promoting research

and other activities integrating the institution into Mozambican society.

It has four sections:

- *The development of university academic programs;*
- *Research*, a description of why applied research should be promoted, not only to contribute to the analysis and solution of the endemic and widespread problems affecting Mozambique, but also because of the need to link it to improving teaching activities;
- *Extension*, focusing on the need for professional refresher courses as well as publication of research results;
- *Consulting* foreseeing UEM's increased capacity to undertake consultancy services on a contract basis.

The next 20 pages, *The evolution of the UEM and the principle difficulties encountered*, contains a complete description of existing obstacles to regular work. They include:

- *The professoriate* presents a full account of the evolution of teaching staff since Independence, detailing the qualifications and professional experience of the academic staff, pinpointing the relative youth and lack of higher level qualifications. Constraints on academic staff included high work loads while salaries were absolutely as well as relatively low when compared with salaries in the private sector;
- The section *Instructional and Learning Resources* details (1991, p. 11) "insufficient and outdated" libraries, laboratories and other infrastructures;
- The section *Students' Living Conditions* contains data on the number of students living in hostels, on the number of students coming from rural areas, and by province. Partial information is also provided on scholarships, illustrating they were (1991, p. 15) "insufficient";
- A section *School Achievement* containing two types of comments appear in this section:

- one, emphasizes the high drop out rate per year (11%). Only 50% of students enrolled complete their courses each year and only 40% of the students finish their courses in the regular period of their program;

- the second comment concerns students skills and abilities when they arrive at UEM from pre-university courses (where schools operate in deficient conditions. UEM has to cover for that. Academic regulations are mentioned as rigid and requiring evaluation and revision;

- A section covering *Research and Extension* clearly mentions that (1991, p. 22) "research at the UEM must be viewed in its incipient stage". Research projects have been taken linked to graduate degree work for Mozambican lecturers. Lack of regulation for career development for academic staff and also lack of equipment are the main difficulties in pursuing research work. Research is heavily dependent on funds donated by foreign agencies;
- Section titled as *University Consulting Services*;
- *The University Technical and Administrative Staff* are put under the spotlight in a section with astonishing data. Of the 361 people in administrative functions, 181 working in laboratories, 70 working in libraries and 660 on services and supporting functions, none had a higher education degree, 3% had 9th grade, 70% had less than 6th grade, while the remaining 27% had no academic qualifications. This showed clearly the lack of understanding of the role of administrative and support staff in underpinning the development of a University;
- *The Structure and Administrative mechanisms* were reported as deficient! Lack of qualified staff weakened administrative processes. There is no habit of internal annual reporting of activities;
- The last section covers *Financial Resources* and states that UEM always worked in an under funded situation both of recurrent and

capital funds. It concluded that a minimum of US\$30,000,000 was the annual necessary budget for normal operation. It was expected that government would provide approximately 16.6% of that amount. The remaining 83.4% needed to be found - particularly from the donor community.

From page 28 to page 47 *The UEM's Development Strategy from the present to the year 2000*, P&P lists measures, policies and activities to be undertaken for the amelioration of UEM's environmental working conditions, including:

- A section *Philosophy* contains 10 general objectives for the development strategy, including:

- (i) *Stabilization of the Mozambican Professariate and Planning for its Growth*, recommends increasing salaries for academic staff and a housing program scheme;

- (ii) In *Admission policy planning* faculty quotas for yearly student enrolment and strengthening available courses are presented and presents the problem of regional imbalance;

- (iii) In *Improvement in the Students' quality of life* it is highly recommended to increase the UEMs' hostels capacity to 2,000 places;

- (iv) The section *Increasing the efficiency of the learning-teaching process* recommendations: Launching a program for books and manuals in Portuguese; creation of a bookshop; a selective admissions process through admission exam; a wide curriculum reform; Improvement of library access; Renovation and expansion of instructional laboratories; Dissemination of computer equipment and audio-visual; Assessment of the causes of students low performance;

- (v) Issues for the *Institutional Reinforcement of the Faculties* are addressed in a section that concludes with recommendations for massive recruitment of young Mozambican teachers, programs of cooperation with faculties in foreign universities and improvement of infrastructures and equipment in faculties and a massive building programme;

(vi) On *Consolidation of Dependent Institutions* measures for improvement of the infrastructure of both the National Historical Archive and Museum of Natural History as well as to take advantage of the resources at the Centre of African Studies were postulated;

(vii) On *Strengthening of Research, Extension and Consulting Activities*, research should be linked with (1991, p. 42) "most pressing national problems" and "research, extension and technical assistance activities will be driven towards contributing to the country's development" and policies addressing criteria for evaluating quality and relevance of research projects have to be in place;

(viii) *The launch of Graduate-level initiatives* is presented in general terms;

(ix) The pressing issues about non academic staff are covered in the section *Rationalization, Stabilization and Qualification of the Technical and Administrative Staff*. This section has almost 2 pages of recommendations on training consistent human resources policies, relevant training programs and discarding some support functions (restaurants, transportation services, etc.);

(x) Final section on *Strengthening the Management Capacity at UEM* affirms that UEM has to utilize (1991, p. 45) "adequate and modern management methods and tools" and mentions a number of initiatives to "decentralize" management and administrative functions.

P&P finished by presenting financial needs (from 1992 to 1996) with rationale. It contained:

- an estimate of total cost of the strategy;
- a summary of funds secured by UEM for 1990 and 1991, as well as the needs for the next 12 years;
- a proposal that tuition fees paid by students be kept in the institution (instead of being deposited in the Ministry of Finance National Treasury), and that the university would increase its consultancy income;

- a major proposal for the constitution of a "Flexible Access Fund", inside the budget mechanisms of the institution, where all resources provided by Government and international donors would be integrated to make it possible for UEM to manage, according to the priorities of its plan.

Another rather hidden proposal is outlined related to the reporting mechanisms to all donors. It recommends having only one report that reports on all resources to all donors instead of a multitude in different time schedules... This proposal is not explicitly presented but is quite implicit in the text (Wield, 1995).

The financial projections for 12 years of work, based on the funds that had been secured for 1990 and 1991, showed an astonishing and very sensitive request of resources allocation - on Table 3.1 of this thesis is presented a comparison between the 1990 secured funds by the University and the funds intended as needed for P&P implementation.

Table 3.1

Financial resources secured by UEM for 1990 and funds estimated in P&P

Funds secured for 1990

Description	Year 1990	
	Government allocations	Other donors
<u>In value</u>		
Operational expenses	US\$4,163,502	US\$14,407,894
Investment expenses	US\$3,594,429	US\$3,619,218
<u>In percentage</u>		
Operational expenses	22,4%	75,6%
Investment expenses	49,8%	50,2%
Global percentage	30%	70%

Funds required for P&P implementation (per year)
- in thousands of US\$

Description	Year 1		Year 5		Years 6 to 12	
	Gov. funds	Other Donors	Gov. funds	Other donors	Gov. funds	Other donors
<u>In value</u>						
Operational expenses	US\$9,937	US\$26,868	US\$12,775	US\$34,472	US\$14,930	US\$22,256
Investment expenses	US\$7,771	US\$59,807	US\$7,771	US\$59,807	US\$2,587	US\$23,496
<u>In percentage</u>						
Operational expenses	27%	73%	27%	73%	40,2%	59,8%
Investment expenses	11,5%	88,5%	11,5%	88,5%	9,9%	90,1%
Global percentage	17%	83%	17,9%	82,1%	27,7%	72,3%

Source: Mondlane, Universidade Eduardo (1991). *Present & Perspectives*. Maputo, Mozambique.

The percentages were calculated by the thesis author and further comments are presented in the next section of this thesis.

The plan was detailed around a skeleton prepared by the main writers and was done without the collaboration of any higher education planning expert or anyone experienced in drawing and writing strategy plans. It all came from in-house informal consultations, ad hoc readings and the empirical know how available at the university at that time.

The long description presented above is summarised by Matos (1993, p. 3) in 5 main objectives:

- "to stabilise the institution by tackling the main causes of problems affecting academic and administrative staff;
- to improve the learning and living conditions of students;

- to increase the quality of teaching, research and support services, with priority given to disciplines deemed critical to the country's stage of development;
- to expand graduate output by improving internal efficiency and making more effective use of available capacity and
- to seek a nationally representative student body in terms of gender, class and ethnic background".

At the time of presentation of this plan, it was a major "innovation" in the world of African universities and in Southern Africa. Credit should be paid to the Eduardo Mondlane University leadership and staff.

In view of UEM P&P innovation, the reaction of foreign donors was of approval. Donors expressed interest in continuing to support the university, after seeing how the institution perceived its role, activities and future tasks.

An immediate outcome of the above planning exercise was the agreement of the World Bank to support some University activities, inserting them in the framework of the "Capacity Building Initiative". Mozambique was included in this initiative as one of the pilot countries in Southern/Eastern Africa (⁴¹).

3.4

Reflection on Strategic Planning: a model for Africa?

Reflection on the process of planning at UEM resulted in a range of issues of administration and management. "Present & Perspectives" was one

⁴¹ To prepare this project, a group comprised by Álvaro Carmo Vaz (Faculty of Engineering) + José Rodrigues Pereira (Faculty of Agronomy and Forestry Engineering) + two academic staff from other faculties + Célia Diniz (from the GFP) (the thesis author) and José Negrão as a middleman with World Bank officials (JNegrão was from the Faculty of Arts and also a former Secretary of the Scientific Council and was working with William Saint, from The World Bank, to prepare the "UEM Capacity Building project proposal" - he was consulting constantly with the UEM group to provide advice on the WBank requirements and details for the polishing and perfection of UEM's proposal) and worked strenuously to prepare and negotiate with the World Bank.

of the first, if not the first, initiative in the 1990's of a Southern Africa university attempting to have a comprehensive and integrated set of objectives and goals, delineating routes for action.

Following this initiative, two other universities - the University of Dar es Salaam (Salaam, 1994) and the University of Zambia - also drew up Strategic Plans. Those institutions benefited enormously from the UEM's example, working up their plans in a more inclusive way and involving more people inside the institution, at the same time looking more carefully at their implementation.

"Universities" are complex and intricate systems of competencies and authorities, consequently unlikely to have the ability to manage those systems effectively when facing dramatic and endemic situations of meagre human or material resources. Just as universities cannot be moved from one place to another because of cultural and local specificities, modern tools of management and complex information systems can only work if local factors are included.

Also African universities have to deal on a day-to-day basis with a variety of donor agencies (national and local governments included) whose ideology, trends of thinking and modes of operation differ. Given that this is often cited as the reason for expanding the administrative burden of universities in industrialised countries, why is it so difficult to see the same realities in African universities?

Time and persistence are required to have a harmonious outcome of radical change in management. Speedy change and quick outcomes in the operations may not always be an indication of sustainable successes.

It is argued earlier in this chapter that the quest for efficiency and effectiveness of performance of African universities is highly sensitive,

given their lack of history and the importance of undertaking serious learning processes if long-term change is to be sustained.

What is the proper organizational model for an African university? Given the wide variety of models: rooted in francophone, Anglo-Saxon or American archetypes, or the Portuguese, Spanish or even the Latin American model, what is the capacity of African universities to decide the model they want to follow? Analyses of the issues based on a superficial notion of a particular model, can lead to adoption of inappropriate solutions.

Rhetorical discussions on "centralization" or "decentralization", using arguments from western institutions, take place in African universities, where a modern culture of accountability is new and not well known. Such discussions without precise concepts can lead to diffused discussions and controversial decisions. In western institutions, generally there is a combination of the concepts "centralisation" and "decentralisation" for both academic and financial management, to hold the institution accountable for its overall and specific performances.

In the view of the thesis author however, the effort to make a "Strategic Plan" and to work under a strategic planning framework very much eases the life of an African higher education institution. As we have argued, institutions have to face many constraints and challenges and increasingly are on a tide of enormous pressure to open their doors to teach more students. Castells, (1993, p. 74) says "the new nationalist governments have actually used the creation of universities and the increase in the number of students as a measure of their development efforts". If academic and administrative staff and responsible students of the institutions do not have the framework of a "Strategic Plan" to work for better times, their work will always have to restart each new day the sun rises.

3.5 Conclusions

P&P was an honest attempt to harmonize the fragments of UEM's work. It represented the involvement of a large number of University staff, recommending, approving, disagreeing but always tuned into the same set of general objectives. Not all the "technical" skills to forge a "strategic plan" were in place but the heart and the soul of many people nurtured the plan's manufacture.

Few people recognized that the plan was part of a resolute effort of NMatos to keep a clear perspective of all the intricacies of managing an institution like an African university. But, there is no doubt that this effort, reported in Chapters 2 and 3, represented a moment where university staff had a common objective and were transparently aware of the itinerary of the institution.

The vigour and clarity of P&P was so naively expressed that when we compare the funds requested for P&P implementation and the funds secured by UEM in the year 1990, we can see how much effort either from government or from other donors and specially from the institution would be required to implement it adequately.

Table 3.2 shows how many times the financial effort required would be to 2002 than in 1990:

Table 3.2

Relation between P&P implementation funds and 1990 secured funds

Description	Year 1		Year 5		Years 6 to 12	
	Gov. funds	Other donors	Gov. funds	Other donors	Gov. funds	Other donors
<u>P&P funds are higher than 1990 funds</u>						
Operational expenses	2.4 times	2.5 times	3.1 times	3.2 times	3.6 times	2.1 times
Investment expenses	2.2 times	16.5 times	2.2 times	16.5 times	0.7 times	6.5 times
Global value	2.3 times	6.0 times	2.6 times	6.5 times	2.3 times	3.2 times
<u>Total P*P budget is higher than total 1990 secured funds</u>	4.7 times		5.2 times		2.9 times	

Source: Mondlane, Universidade Eduardo (1991). *Present & Perspectives*. Maputo, Mozambique.

In Table 3.1 we saw the funds needed for the implementation of the plan (⁴²). The percentage contributions expected from the donor community was quite high (for the first 5 years nearly 80% of the funds needed and in the second 7 years slightly more than 70% of the resources required), with the danger of putting the institution, as a hostage in the hands of so many kidnappers. In other words, the institution would need extremely clear and well defined objectives and management processes to avoid the nightmare of dealing with different donor interests, timeframes, focus areas and cultures. Already, for funds secured to 1990, there was a plethora of donors on top of government funds (that were, in 1990, less than 1/3 of the existing funds).

What is amazing about P&P is that the plan was conceived by the institution without any previous knowledge and experience of university

planning. Analysing the plan once more for this thesis, the author was touched by the simplicity of the document and the way it was written: quite fluid and straight - with no pre-definitions, few graphics and explanatory tables and drawings. Moreover, the plan does not have an "ideological" framework affiliation but is based on an "innocent" intent to teach students well and to have graduates with better qualifications.

Some "obvious" recommendations, like the opening of distance education courses, and other visionary ones, like the housing program, were guided by a vision that the university would give the country its best effort. In turn, via its government, the proper institutional operational framework and required resources would be given.

The team that wrote P&P, and those staff who discussed it, did not consider the early arguments in this chapter concerning the history and function of universities, the evolution of higher education systems, current world economic approaches, general implications of globalization, and the concept of a "development university", or the stringent financial conditions inflicted on higher education institutions, especially in Africa. If all these arguments had been known and analysed, would P&P have remained a "internal" affair - highly open but very inclusive even within UEM and its supporters? Or would it have become more like a sophisticated "corporate plan"?

One of the most important arguments, if not the most important, coming from the analysis of the UEM's case, is that all planning activities there have occurred without any theoretical framework on "what is development for?" or "what is the role the university has to play in the development of the country?" The thesis author has the argument that there was no tradition, at the university, of such discussions and debates. Those debates may have taken place in the FRELIMO cells at the University but were never based on any conceptual and theoretical

⁴² At an exchange rate USD/national currency ("metical") of US\$1.00 = 927.00mt

knowledge of "development" as a process. For years people acted merely on "directives from the Party" or "instructions from the Rector" or "recommendations from the Minister of Education".

The author of this thesis argues that everything good and bad at the Eduardo Mondlane University over the years 1975-1990, happened based on a sense of collective discipline and on everyone's intuition to understand why things should take place in the way prescribed for them. That was the basis of action. The university ran for years without a postulated (call it "developmental questioning") understanding of the role of the University in the country or the type of influence the institution could exert on the outside world. Neither did it understand the inspiration that the world outside the institution could bring to its curriculum, performance and absorption of graduates and contributions to the definition of research programmes (⁴³). Recapturing the argument that this collective and mystic belief in the spirit of the university was sufficient to make staff and students move forward, this also was, because it was a positive attribute, demonstrating candour and ingeniousness. But it was also a major weakness because it allowed a massive influx of ideas, good, bad and potentially fatal, to emerge equally given the lack of framework to respond according to needs and views.

The author also argues that sustainability of decisions taken by any higher education institution working in "transition periods" is directly related to the understanding of development as a process. The importance of "development management" is relevant here (Thomas, 1994) because understanding "development as a process" in the university requires not only strong management of strategy development but also monitoring and supervision capacity of operations.

⁴³ For example, in terms of "higher education management skills" the first courses for Deans of Faculties did not take place until 1993.

4.

Research as capacity building at UEM

This chapter describes the history of the organisational framework for research activities at UEM. It analyses how financial administration developed in response to graduate development of research activities.

Research was chosen as the focus for a case study in this thesis because it was the first area where the complexity of internal and external management systems was addressed in UEM. Research was also the first area where attempts were made to build a strategic approach which integrated government and donor funded activities and linked research to staff development and to the university mission as a development university. In other words, research at UEM was the activity first organized in a more strategic, holistic way. The response of UEM's financial administration to the development of research and later to the development of various other activities' and the manner in which the financial systems in place turned into a useful tool for the development of UEM's strategic plan, are analyzed in the final part of the chapter.

The first part of the chapter describes the historical development of a research framework within the University by the central management of the institution. The second part of the chapter describes the collaboration of two international research funding agencies and the consequences of this collaboration to the Research Management and Research Administration systems at UEM. The third part presents the financial systems put in place for research administration and the usefulness of those systems for UEM's financial accountability. The last part has some preliminary conclusions.

4.1

The history of research development at UEM

In 1975, at Independence (as described in chapter 2) the country's only university faced challenges from political, academic and also administrative and managerial sides. These challenges were rooted in: the need to assert a national identity; the need to find a working model that would best suit the development needs of the environment; and the need to nurture creativity and initiative to maximize the resources available as effectively as possible.

As mentioned also in chapter 2, the Portuguese colonial administration very belatedly planned the creation of a national intelligentsia and skilled manpower. Accordingly, at Independence there were only a few skilled Mozambicans able to undertake teaching and research. The same was also true of administrative, technical and other supporting functions since libraries, laboratories, workshops, accounting units, and academic registration were drained of qualified staff at Independence.

Administrative functions were, usually, seen as performable by anyone with sufficient basic academic qualifications. In general, this is a common argument. But, given that a certain level of expertise, know how and professionalism is required both of individual performance and for systematic smooth functioning of an institution, the assumption is over-optimistic: At UEM we could see young, tense and overloaded academic staff having to deal with administrative and management functions without the support of qualified administrative staff. University practices at the time were to appoint academic staff to all leadership and management functions at the institution. Only a few administrative sectors, like the Finance Department, did not have academic staff heading them (⁴⁴).

The institutional understanding that a University is a complex

⁴⁴ The need for a "two track professional highway" in a higher education institution as mentioned in Chapter 1 (the academic staff linked with the contribution of

organisation with several tiers of relationships and authority lines, where the roles of academic and administrative staff should be complementary if the institution was to fulfill its societal objectives, was very present in the mind of the author of the thesis. It was her comprehension that "Universities have become very complex institutions requiring of their administrative staff professional commitment. They work quietly, unobtrusively and effectively beyond the limelight of the academic staff" (Bosworth in "Beyond the limelight: essays on the Occasion of the Silver Jubilee of the Conference of University Administrators", 1986, quoted by Palfreyman and Warner, 1996, p. 9).

The quote above serves as a preamble to the core of this chapter: to build a picture of the organisational evolution of the research function at the University seen through the eyes of an administrator as Bosworth describes. And also to understand the response of the administration to the needs of research work.

For this dissertation the historical framework of research activities at Eduardo Mondlane University is considered in three phases:

- a. From June 1975 to November 1982
(Independence Day to 2nd General Meeting of the University);
- b. From December 1982 to December 1988
(from the 2nd General Assembly of the University to the 1st National Seminar on R&D activities);
- c. From January 1989 to December 1993
(from the 1st National Seminar on R&D to the end of the period covered by this thesis).

4.1.1

June 1975 to November 1982 - "Soil preparation"

In this period - Independence to 2nd General Meeting - the university tried several approaches to frame research and get some results in terms

of better research organization.

At the official ceremony for re-naming the university, in May 1976, the FRELIMO and Republic President (Samora Machel) statement emphasized that the university should develop relevant research activities and not confine itself to being a teaching institution.

At a time where working guidelines were made through public political statements, no one could disguise that research was receiving some indications regarding "where to go" and "for what". But there was no indication of "how", a key omission, as we have underlined and will later emphasise.

Research work was supported enthusiastically by existing University staff: a few qualified Mozambicans in their 30's or early 40's, a lot of expatriate staff and an enthusiastic group of junior Assistants, newly recruited. For all of them "research" was not only a means to contribute to the guidelines for the University, but also an activity contributing to their individual professional careers - to link "research" with "staff development" was the perfect match!

Gonçalves, 1988 briefly reports in an overview of research carried in the areas of Mineralogy and Geology, Medicine, Veterinary, Biology, Physics, Chemistry, Agronomy and Ecology that in 1975/6 a) there was some physical infrastructure available for research; b) research projects were carried out linked to Ph. D. degrees; c) however, only 37% of the teaching staff members were undertaking research work and it was expected that 50% of those members would soon leave the country.

Gonçalves also stated that the research undertaken could not be categorised as "integrated research" (whilst giving no definition of "integrated research") and was not planned carefully; in some parts of

the institution research work was paralysed. There were no medium level support staff available. And finally, the teaching, management and administrative workload was extremely high, not allowing academic staff time to develop research activities and produce good quality teaching.

Gonçalves concluded her report by saying that there was a need to have policies for research as well as to have definition of priorities coming from government; she suggested that integrated research plans be developed to maximize the scarce resources available.

Gonçalves further described the establishment, in 1978, of a Committee for Scientific Research ("Comissão de Investigação Científica") with the idea of structuring research prospects and activities given research's important role in the institution.

This Committee, in April 1978, carried out a survey throughout the University, covering 26 sectors and getting a picture of, and understanding for, research policies. An inventory of research projects was concluded together with an overview of existing relationships between the university and outside sectors. Finally, an overview was produced of available human resources as well as support sectors and also the organization, monitoring processes and structures for scientific research.

This work was the basis for recommendations for Scientific Research from the 1st General Meeting (UEM, 1978).

The main document for scientific research from this General Meeting (UEM, 1978) considered the following themes:

- * Structures for the orientation of scientific research (in the short term);
- * Guidelines for approval of scientific research projects;
- * Model of research protocol;

- * Monitoring process of the research projects;
- * Table of classification of the types of research ⁽⁴⁵⁾;
- * Means and sectors for publication and dissemination of research/extension works;
- * Contracts with UEM for research projects and extension services ⁽⁴⁶⁾.

Arising from the recommendations of this meeting (UEM, 1978) a "Comissão Central de Investigação Científica" (Central Commission for Scientific Research) was established as a committee with a permanent executive structure guided by 3 people with "vast professional experience and also with experience of scientific research" ⁽⁴⁷⁾. This committee would link with sectoral committees from faculties or common interest groups (an example of 'common interest' was "Rural Development"). This Committee did not last long, buried in the number of other tasks to be performed by the only person nominated for it.

It is quite interesting, now, to look back and see how research at the national university foresaw its contribution towards national development (UEM, 1978, p. 1):

"The structures of the Party and the Government define socio-economic development priorities in the People's Republic of Mozambique. The leadership structures of the Eduardo Mondlane University select, among the priorities of that development, the scientific research lines of work that, with the human and material resources available at the University could be carried by this institution".

⁴⁵ Research was classified as: "fundamental", "fundamental-oriented", "applied (but not requested)", "applied and requested by the definition of a medium or long term problem to solve" and "applied and requested to solve a short term problem". But no definitions and explanations for the contents of this classification were found in the documents consulted (UEM, 1978, p. 6).

⁴⁶ It is clearly defined, here, that the first priority of the University was "teaching"! However, contracting with outside institutions, for research and extension was not excluded.

⁴⁷ In those days, with a tremendous scarcity of human resources, it was almost a fantasy to conceive of such a structure!

[Source: (UEM, 1978) from original in Portuguese].

But hopes were high and the enthusiasm generated by the setting up of the Committee (which acronym was CCIC) were closely monitored by the constituency of university FRELIMO members. In another document that originated from this constituency (Grupo de Organização da Reunião Geral da U.E.M., 1980, p. 1) it mentions that it is "not realistic to promote research based on integrated or even coordinated projects". Also it is mentioned that (Grupo de Organização da Reunião Geral da U.E.M., 1980, p. 1) "national teaching staff are a minority in number overloaded with several and dispersed tasks aside of the fact that they are recently coming from an undergraduate degree and do not have work experience with research". And finally it is indicated that the foreign teaching staff were very mobile. However, in the same document is made clear the goal of "being able to organize research activities" in a manner that would suit all interested parties (Grupo de Organização da Reunião Geral da U.E.M., 1980, p. 2).

Combining two tables of Olsson (1995) a snapshot of the university load of students and academic staff available is provided in Table 4.1:

Table 4.1

Academic staff and students enrolled					
Years -->	1975	1980	1985	1990	1993
Academic staff:					
Mozambican	5	47	138	308	464
Expatriate	154	193	185	149	104
Number of students:					
Non-academic		706	589	42	0
Academic	2433	1016	1442	2884	4016

Source: Olsson (1995).

Clearly, definitely during the period up to 1985, and even afterwards, dreams were higher than resources: too few Mozambicans as academic staff

and too much organisational work to be done.

After the CCIC model a new "Committee for Scientific Research" was set up, this time led by a foreign teacher assisted by a Mozambican young teacher who had completed his "licenciatura" degree. This Committee worked with the embryonic research projects existing at the time mostly to allocate resources from the national budget as well as to include them in a list of activities called a "Plan for Scientific Research of the University". A two-year plan was framed. When the foreign teacher ceased his contract with UEM this coincided with the Mozambican teacher going to pursue his Masters' studies. Both were replaced, for a time, by another Mozambican staff member who kept operations as they were.

The table above shows how inexperienced were local staff and also the key role of foreign academic staff - foreigners were recruited for two years service, renewable for 1 year. In such circumstances it was a fantasy to have someone able to do both teaching and research with high quality results.

Clearly, research work at this time was embryonic and only visible through the activities of the new Centre for African Studies (⁴⁸) and in some applied work done through IICM and in the Archaeology sector. Any attempt to "coordinate" research was like having to deal with too much wind for very few mills. There were not enough qualified people and nobody wanted to take decisions that would restrict anyone... in fact in an environment with scarce budgets and without strong academic guidance other than of a political nature, with such small numbers of Mozambicans, everybody knew everybody. Also, foreign academic staff involved would be in a quite uncomfortable position to pursue their work in such

⁴⁸ The Centre of African Studies (CEA) was set up after Independence and research was headed by Ruth First, an ANC member and a renowned scholar and researcher, and directed by Aquino de Bragança, a FRELIMO member and an intellectual with a vivid mind who had a journalist career. Ruth First was assassinated in 1982 when opening a package, in her office at the Centre of African Studies, in the main University campus; Aquino de Bragança died in 1986, in the same plane crash where President

conditions.

4.1.2

December 1982 to December 1988 - "Sowing"

The second phase of research development at the national university analyses the outcomes of the UEM's 1st General Assembly, and activities and policies up to the first National Workshop for Research & Development.

In 1982, a National Planning Commission was set up prioritising development based on Agriculture, Rural Development, Industry, Construction and Transport. A wide-ranging national plan for 10 years was drawn up (called PPI, see chapter 2) and the plans of each institution were expected to conform. This type of planning, while showing heartfelt objectives to contribute to better living conditions, was based on a top-down development approach leaving little opportunity for more adaptable and reliable forms of planning and work.

The 2nd General Assembly of the University followed the national plan approach and decided that research plans should be anchored in the national plan (PPI) with all activities and details organized within its framework (UEM, 1982a) (⁴⁹).

The written documents on research prepared from this important meeting show a noticeable difference, compared with similar ones prepared for the 1st General Assembly. The text and ideas reflected different concerns from before. The change from a rather prescriptive style towards the development of a crusading conceptual framework for research, was clear. The main document on Research presented to this meeting had the following

Samora Machel died.

⁴⁹ A good example are the Recommendations coming from the 2nd General Assembly of the university where the relation between the National Development Plan for 10 years is connected with the yearly research plans of the University and also of each faculty and department [UEM, 1982a]

organization (UEM, 1982a):

(i) an Introduction presenting the main objectives of research at the University: to update the knowledge of the academic staff and to contribute to the solution of the country's problems;

(ii) A long chapter on "Planning research development" with consideration of:

- the necessity for a national plan for research coming from the Committee for Higher Education and Research (this committee was legally set up but at the time was not in place. Attempts to start it only began in 1991 grouping the Rectors of the public higher education institutions);
- the relation between "basic" and "applied" research - "applied research" should be the priority but that "basic research" should not be forgotten... ⁽³⁰⁾;
- research should be linked with teaching. Research should be done by academic "teaching" staff and students should be involved in it;
- research should be linked to development of University teaching staff;
- cooperation among faculties of the University should be fostered and strengthened (to have common research projects share laboratory facilities and to exchange methods and ideas);
- international cooperation should be used to build inputs from other universities in the world, namely institutions from the "socialist" countries ⁽³¹⁾.
- presentation and dissemination of results of research should be promoted by all possible means. The final phrase of this

³⁰ But definitions for what is "basic" and what is "applied" research are not contained in the document... (UEM, 1982a, p. 3)

³¹ A subtle criticism is clear when the report mentions that although cooperation already exists from direct contacts of the Faculties, that restricted the profile of the cooperation. This implies that the profile could be higher if UEM's central

chapter is very much a phrase of the times: "all forms of scientific and cultural within the university should be planned and coordinated"...

(iii) On the definition of research priorities, an embroiled argument was presented. National priorities should be known so as to prepare the plans of faculties and departments. But since there were no national priorities defined yet the "PPI" should be used to produce a "pre-project" of research work. As efforts need to be focused on applied research, UEM needs to find out what is going on in the world on "basic research" so as eventually define the research structures at the University.

(iv) A final chapter on the "Organisation of the Research process", interestingly, contains less than a page and recommends having at the University a Central Research Directorate, at the level of the "Reitoria" with Scientific Councils for each Faculty. It mentions that interdisciplinary research must be encouraged and a number of suggestions are presented about the University needing to have a proper Computer Centre and a Centre for Scientific Documentation and Information. Also the university needed resources to buy scientific documentation and literature and needed internal research regulations.

Overall, everything had to be mapped out but there was little in the way of clear guidelines to help that mapping. There was much less on how to organise and coordinate research than on the strategy for future research activities.

Another interesting outcome of this meeting is that a new expression was coined: Research & Extension - something that related research to development, and later to funded activities (UEM, 1982a, pp. 11-13).

Extension activities were to take place provided: a) they could either be channeled to the countryside and rural areas in an attempt to have

"socialised" development; b) or orientated toward "heavy industry", or c) contribute to human resource development. One relevant outcome was that "extension activities" became part of teaching curricula from the 2nd year for all university courses. Every year, students, teachers and other staff would work for 6 weeks in factories, farms, hospitals and other areas, utilizing their scientific knowledge to improve the performance of the sectors where they worked (See AJU, chapter 2).

The overall shape of the University was also seen as requiring planning and coordination - the 2nd General Assembly of the University also issued main guidelines for the development of the institution for the decade 1981/1990 (UEM, 1982a).

The number of students for the University was planned to be, in 1990, approx. 10,000 students and the ratio teacher/student should evolve from 1/8,6 students to 1/10 students by 1985 and to 1/15 students in the period 1986/1990. 350 academic staff members were planned by 1990.

Recommendations covering all areas of the administration of the institution were also issued. The one that concerned the creation of a Gabinete de Estudos e Projectos "Office of Studies and Projects" (GEP) (UEM, 1982a, p. 28) is noted because it is a focus of this dissertation.

The University again worked to install a coordination body for research activities, with both success and failure. Only in 1983, after the 2nd General Assembly of the University, were consistent efforts made to set up the Permanent Secretariat of the Scientific Council of the University (⁵²) - a young "licenciado" in History of Mozambique, José Negrão, was nominated who would work under the title of "Permanent Secretary of the Scientific Council of the University".

⁵² In texts in English the "Scientific Council" is named as "Academic Council".

The newly appointed "Permanent Secretary" had to face two legacies. The first was that existing research coordination was very much based on donors reporting needs and therefore linked with International Relations interests (⁵³). The second was the paradox (⁵⁴) of having to function in an environment where there was not yet a "Scientific Council" to convene.

Also he was expected to implement guidelines prepared and approved without his prior knowledge in days where "approved" guidelines were sacred.

The working approach of the Secretary of the Scientific Council was to do what was "possible" in a sea of "impossible" things. To build what would be later understood as a "Research Management" function based on available "Research Administration" tools - those he had immediately to hand or available in other units of the institution. Some necessary tools were not available, but existing ones, from financial administration, were capable of contributing to "seed" the way for convenient management of research work. In Negrão's own words (translated from Portuguese) (Negrão, interview, 1998) he approached his work by concentrating on two working features: "Firstly, I decided to take care only of the processes and contents of research; and proposed to the Rector that financial administration issues should entirely be processed through GEP and not mingled with contents of research processes. The entire process, prior to my time, was very complex and where the two sides were dealt with by the Scientific Council and again by GEP, for financial purposes. My understanding was that after the research proposal had been approved by the Scientific Council, implementation should be streamlined with proper budgeting system - and that I left to GEP's responsibility.

⁵³ José Negrão, in an interview for this thesis in January 1998 reports that the immediate problem he had to solve was to prepare a University position for discussions with SAREC - because of existing budget balances and the need to prepare a new funding agreement.

⁵⁴ The actual phrase used was a "two blades irony" meaning that instead of a knife having just one blade to cut, it could cut in two ways.

Secondly, an initiative was launched to get more research funds from new donors and for that purpose I and you have always worked together, each complementing the other and giving donors an image of seriousness and commitment from our university and showing an 'integrated' research administration vision".

The visible manifestation of this organizational work started to show when UEM proposals presented to research funding agencies, actually SAREC, gave evidence of an integrated vision of staff development objectives for the first time.

For the first time, an approach emerged with a strategic vision for the university - in this case research and staff development, and integrated a clear perspective about "how" to operate it in practice throughout the university. At the same time, this showed clearly to SAREC what were the main needs and priorities for a research system for wider institutional development.

José Negrão, the Secretary of the Scientific Council and Célia Diniz, Head of GEP, combined academic with administrative innovativeness. SAREC eventually began to understand the institutional importance of this work and supported it as well as its research projects. Negrão went on to help formulate the Strategic Plan for the university in the early 1990s.

The consequences of this approach were important inside the institution, leading the faculties to build their plans in accordance with what would become a consistent staff development approach. They also inserted other relevant data like: expected teaching load, ideal number of students, library resources needed for all activities, equipment required, etc.

Completing this time cycle and following an evolution of growth in knowledge and maturity the University organised in December 1988 a National Workshop for Research and Development (UEM, 1988a). The documents of this event show an acute concern to have everyone understand and speak the same language and utilise the same communication codes. In the main document for the workshop several definitions used were presented by UNESCO: for "basic research", "applied research" and "research and development" (UEM, 1988a, pp. 1.3-1.6) Interestingly, it is stated that the internal purpose of the meeting was to set up organizational standards for all sectors within the University. The "how" emerged at last.

A summary of the recommendations and suggestions and discussions at this meeting follows (UEM, 1988b):

- Several documents presented were seen as introductory drafts for working tools to be utilized in the future (eg: instructions for drafting a sectoral research plan, instructions for a table of expenditures for any research budget, criteria for approval of a research & development (R&D) project, instructions for follow up and make international contacts⁽⁵⁵⁾);
- It was acknowledged that the level of research was still embryonic and that all sectors involved in the workshop (five other research institutes also attended the meeting) had scarce resources as well as small management capacity. It was suggested that inter-sectoral cooperation should take place;
- Research priorities should be defined according to gradual national socio-economic development and researchers interests should be made compatible with national interest;
- Human and Social Sciences should be developed in the university courses;

⁵⁵ All instructions, instead of being "authoritarian" in tone tried to have an informative and educative tone and were presented in an instructional way to provide complete working guidelines.

- Staff should be evaluated according to teaching and research criteria but also on the basis of contribution on management activities;
 - New academic staff should benefit from special attention not only to receive training for teaching and research work but also to have a career path prepared;
 - Service activities were important to bring new resources to the sectors but they should not conflict with research for training purposes.
- Recommendations for financial incentives to staff involved in research were issued;
- Stabilization of the labour force at the university and research institutions and capacity to control and avoid brain drain should be considered;
 - The planning methodology for research should be simple and flexible with lack of "bureaucracy";
 - Convenient, updated and regular bibliography should exist in all institutions - including computerization of the information system at UEM.

The closing speech by the Rector, raised the following points: (UEM, 1988c):

- What would be the role of every institution regarding "coordination" and inter-sectoral exchange of information for all research activities?
- How to have information about all "scientific experiments" taking place in country?
- How to maximize the meagre budget resources available for Research and Technology where the contributions of foreign donors were vital?

At the official level, the instructional guidelines for research work at the University - from 1975 to 1988 - did not change. Research was constantly mentioned as important, but did not get much official attention. Other issues like keeping classes open claimed most

attention. Nevertheless, during the period 1983-1988, a new approach was being forged, which closely linked research with staff development, linking both to national priority needs. This had the potential to bring research much more to the fore.

4.1.3

January 1989 to December 1993 The beginning of the harvest: Integrating research with capacity building and institutional development

While the previous phases of research development were characterized by attempts to organise and provide research with a working framework this third and last phase makes no such attempts in comparison. The Secretary of the Scientific Council kept operations as they were, working with GEP and other units of the university as before.

But UEM, during this period, was deeply concerned with the effects of the Structural Adjustment Program in the economy and the scarce cash resources that the institution could obtain via the Government budget, hardly enough for salaries (See Chapter 3).

During this period UEM assertively prepared a Strategic Plan called "Presente e Perspectivas" (as described in Chapter 3). This exercise forced the institution to analyze weaknesses and strengths and devise options to solve its problems. This effort is well described by Olsson (Olsson being on the donor side). She described the "managerial" and "administrative" implications of the process (Olsson, 1995). What is implied in her description is that all available time of the national staff at the University was absorbed with this exercise and moreover with its consequences (Olsson, 1995, p. 47): "UEM recognized the overall lack of resources in society and the compelling need to increase quality and coverage of the educational system, but emphasised the critical role of high quality higher education for the development of society at large. In analysing its opportunities to make more rational use of its resources,

UEM pointed to inflexible government rules and to the tied nature of most of the external support. It presented a framework for reform and made a plea for sustained national support and for more flexible support from donors".

Olsson continues her description by focusing on the reform process (1995, p. 48): "The response from government and supporting agencies has been favorable. The university has embarked on a far-reaching reform process and has skillfully demonstrated both determination and flexibility. The process started with in-depth analysis of various issues as a basis for steps to be taken". Management reform is also described at length by Olsson (1995, p. 50-51): "The reform process has been managed in an impressive way. UEM has gained international reputation for its reform efforts, particularly for the management and coordination of external support. UEM identified a number of administrative and managerial problems and mobilized its staff to carry out a number of studies to look into possible ways of tackling these issues. A study on the governance structure was commissioned from external consultants. (...) A new university board has been created including representatives from the community. As for the internal organization the intention is to decentralize a previously highly centralized system. In order to do so, it was found necessary to strengthen the administrative systems. (...) Following a financial review, a new system has been put in place where governmental as well as external funds are jointly managed. The review disclosed several weak points. With a tightened financial control, expenses for some of the university services could be used more efficiently. Maintenance units have been strengthened, a procurement unit has been created, and with vigorous repair work and construction the physical infra-structure of the university has notably improved. This positive development is the result of enormous efforts of dedicated individuals" (The "financial review" mentioned above is described and analysed in Chapter 5).

4.1.4 Summary

What were the main features of the university's research organisation?

- During the first period there was hardly any research work at the faculty level. Funding was mostly obtained through the national budget allocation to the university and followed general national budget processes. Consistent coordination from UEM was embryonic, with undefined criteria. However,
- During the second period research work at the faculty level started to appear related to academic staff development. Funding from the national budget was minimal and followed national budget processes. Additional substantial and flexible funds, in cash and in kind (from the bilateral international cooperation) started to arrive in UEM. Consistent coordination from UEM was required and, usually took place as a team effort between the academic and administrative parts of the university. Coordination efforts were in the first instance directed towards Staff Development purposes for academic staff but ensured that the interests of the institution prevailed over the interests of the sectors or individuals.
- In the third period research began to blossom, connected always to academic staff development. The multiply funded nature of research, and the merging of the university strategic plan with Swedish agreement to fund research as an integrated university development activity, led to the research area being the area that where a particular co-ordination model evolved.
- The inter-sectoral channels of communication and production of information within UEM also show an evolution:
During the first phase of research development research projects were presented to donor agencies through the International Relations sector of the University. This sector, was located at the central level of the university structure directly accountable to the Rector coordinating all international contacts and agreements. The International Relations

sector was not required to obtain information to support sectoral proposals for research links.

During the second phase proposals to foreign and to national donors were presented by the University through the Permanent Secretariat of the Scientific Council. The Permanent Secretary of the Scientific Council established close collaboration with GEP - this unit handled all foreign funds, in cash, for research activities at the University requested by the foreign donors - at that time only SAREC directly sent its funds to UEM.

This thesis argues that collaboration between the two units was a major advance in UEM since it was a successful integration of complementary tasks performed by two units of a higher education institution, one academic and the other administrative. This collaboration came about because of working needs: from one side the need to have prompt and global information on the use of (cash) funds provided by external donors. On the other side it was based on a clear view of the reason for funding with careful basis for expenditures. The Permanent Secretary of the Scientific Council of the University worked to take advantage of the International Relations unit capabilities and also guided and complemented GEP's work both for research proposals prepared for outside donors to account for funds and planned activities that took place - or did not. ⁽⁵⁶⁾

This work dynamic was kept in place in the third phase of the research but modified. At the beginning of the 90's under Narciso Matos, the University had two Vice-Rectors (for Academic Affairs - appointed in the beginning of 1993 and for Administration and Finances - confirmed in the beginning of 1992) and GEP then merged with the previous Planning and Finance Directorate to become a Finance Directorate (starting in

⁵⁶ José Negrão was able to keep a high degree of coordination and organization of all activities during his period of work (until December 1988) due to his strong personality.

November.92). Those responsible for research and finance were in different Vice-Rectories and co-ordination had to take this into account. An extra layer of decision making was therefore involved.

4.2

The other history of research development at UEM

4.2.1

The contribution of foreign research funding agencies

The relevance of research for progress is unquestioned. What is debatable is how to make research effective and efficient, in this case in a developing country in Southern Africa. This was, and is, one of the quests that the Mozambican national university had to face continually.

The thesis author suggests that the most significant inputs from external sources that shaped research development were those coming from two international agencies, both of them with "Research" in their mandates:

- * International Development Research Centre (IDRC) and
- * Swedish Agency for Research Development with Developing Countries (SAREC).

This comment does not exclude the contribution of other foreign agencies but IDRC and SAREC are crucial because of their research focus.

IDRC is a Canadian agency whose constitutive Act of Parliament (1970) states that IDRC has to "initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions" (IDRC, 2000, p. 1). In the 1991 Mission Statement IDRC indicates that (ibid, p. 2) "Research provides the means for the acquisition of appropriate knowledge and, by extension, for development... IDRC is dedicated to

creating, maintaining, and enhancing research capacity in developing regions, in response to the needs that are determined by the people of those regions in the interest of equity and social justice".

IDRC presents itself to the world as not being (p. 4) a "bilateral aid agency" but rather a "research council" and for "having a mandate to support research, a governing body whose members are appointed principally for their knowledge and experience with the substance of the mandate, and an equally knowledgeable staff". IDRC stresses that "support goes primarily to Third World institutions that conduct applied research" and points out that "its main concern is to promote empowerment of people through the advancement of knowledge".

Information from the same source indicates that IDRC works from its Headquarters in Ottawa, Canada with seven regional offices in the South, 383 staff positions and with the Parliament of Canada primary funding source.

IDRC involvement with UEM was timid but secure and covered research on groundnut culture in Mozambique, developed by the University Agronomy Faculty starting around the year 1983 and lasting until 1989; a little later, in the beginning of the 1990s, IDRC supported a Mozambican researcher in Chemistry, in the Faculty of Sciences. The first support happened when IDRC already had more than 10 years of experience while the second contact happened after almost 20 years of IDRC experience.

Support for research on groundnut culture was the way to bring to Mozambique an expatriate scientist who had the ability to attract IDRC interest to fund this work, based at the Faculty of Agronomy. As the project was to last for a noticeable amount of time and required administrative inputs that the Faculty of Agronomy was not able to provide, the faculty had the initiative to pass the "unresolved" questions to the Central Administration of the University - so, the need

to provide support for this project came to GEP's attention.

Due to this unintentional confluence of interests, the Faculty of Agronomy gained backup to negotiate the development of the project with the funding agency and the University scientists at the same time as the University administration gained knowledge and skills in its complementary area of influence:

- the Mozambican academic staff involved in the project had the opportunity to develop skills and get appropriate academic training;
- GEP staff had the opportunity to deal directly with IDRC controllers and tune in to the financial reporting requirements of a donor agency.

IDRC, because it was already a structured agency at that time, had attractive educational information tools for Research Administration purposes like "simple" steps on "how to prepare a research budget" or "how to develop a research proposal". For the thesis author, at the end of 1983, reading these informative documents was like being Alice in her first walk in wonderland, specially because this information was printed and disseminated around the world without secrecy and control.

IDRC also fostered GEP's ability to meet other people in the region concerned with Research Administration issues, namely the "fundraising element" and the "accountability factor" on top of the "accounting needs" that GEP was already doing. Contacts with staff and publications of FAMESA - Financial and Administrative Management of Research Projects in Eastern and Southern Africa, a network based in Nairobi, Kenya and hosted at the International Centre of Insect Physiology and Ecology (ICIPE) contributed to the increasing awareness of GEP's staff of the elaborate nature of research work, its relationships and its possible outcomes. Collaboration with interested parties also led the thesis author to collaborate in the preparation of Research resources in national research

institutions in Eastern and Southern Africa, published by IDRC in April 1991 (Nyiira). This synthesis report is used in Strategic choices for sub-Saharan Africa, also published by IDRC in April 1991 which aimed to enable IDRC "to strengthen existing programmes for the region and to tailor future support to meet the emerging needs of research institutions as well as those of research scientists so as to strengthen sub-Saharan Africa's development research capacity in the 1990's".

Because IDRC was only working with one self-contained project in a faculty with characteristics of independence and autonomy (⁵⁷), the impact on what was required to develop a research management and research administration at UEM, was dissipated. This dissipation was very visible when the new contact from this donor agency came to light, with a researcher from UEM Faculty of Sciences not able to deal with the administrative and financial issues involved in the administration of his grant. It was like having to build again a convenient institutional relationship with a donor agency, showing that the characteristics, and mode of action of IDRC were not retained in UEM's institutional memory. The relationship with IDRC had been seen with IDRC only as a "funds provider" instead of a wider partner.

As a contrast with IDRC we now look to UEM's collaboration with SAREC: a younger organisation, only starting in 1975, and whose main goal and operational aims are quoted from Bhagavan (1992, p. 9): "According to the directives issued by the Swedish Government SAREC's task is to "promote research, and monitor research problems, in areas which are of significance to developing countries and to development cooperation".

These directives led SAREC to define its tasks in term of the following operational aims to:

⁵⁷ The Faculty of Agronomy had a long history of working with special characteristics: 1) always with an autonomous line of thinking and 2) with a touch of "fait accompli" mode of doing things.

- (i) assist developing countries in building up their own research capacity in the form of good research environments, training of researchers, as well as methods for planning of, setting priorities in and allocating resources to, research;
- (ii) provide developing countries with financial and scientific resources to generate research results in areas which are important to them, and to obtain research results from elsewhere which are important to their development;
- (iii) assist developing countries, if the need arises, in establishing scientific contacts and cooperation with international and Swedish research institutions.

SAREC works from its Headquarters in Stockholm, Sweden, has no regional office, employs about 40 staff members working in a "Secretariat" model and being accountable to SIDA's Research Council, a body ensuring that "scientific quality is upheld" (SIDA, 2000, p. 2).

SAREC's collaboration with Mozambique started in 1978 - when SAREC was a young organization. Collaboration has expanded over the years to many science fields evolving according to UEM needs and also to follow SAREC's own process of internal organisation and field development comprehension and perceptions. The expansion of the SAREC's commitment to the research work at UEM is shown by the following table of data compiled from Olsson, 1995, p. 67:

Table 4.2
Summary of SAREC's support to UEM by general orientation (1978 - 1994)
(thousands of Swedish crowns)

Orientation	1978/80	1981/85	1986/90	1991/94
Amount allocated ---->	1,395	11,765	29,070	44,300
Basis for research	72%	60%	34%	23%

Orientation	1978/80	1981/85	1986/90	1991/1994
Social Sciences & Humanities	28%	37%	22%	10%
Bioresources & Environment		3%	15%	23%
Natural Sciences & Engineering			24%	31%
Health & Nutrition			4%	5%
Administration			1%	8%

Source: Olsson (1995).

The same figures by UEM sector with SARECs' support, are presented in Table 4.3.

Table 4.3

Summary of SAREC's support to UEM's research (1978 - 1994)
(in thousands of Swedish crowns)

Sector/area	1978/80	1981/85	1986/90	1991/94	Total
IICM	1,000				1,000
Open fund		2,950	1,000	1,000	2,950
Travel fund		1,180	4,525	4,500	3,180
Moz Historical Archives		1,115	1,700		0,140
Archives from Portugal		1,800	2,500	4,800	3,500
Library					7,300
Archaeology/Anthropology		2,810	2,235	1,650	7,090
Centre for African Studies		1,510	3,825	1,560	6,895
History			320	530	850
Economics				400	400
Biology		400	4,200	6,175	10,775
Geography			260	1,510	1,770
Agriculture				1,995	1,995
Veterinary				695	695
Medicine			1,200	2,230	3,430
Engineering			4,900	4,420	9,320
Sciences			2,000	7,460	9,460
Mathematics			155	1,975	2,130
Maintenance workshop				1,730	1,730
Informatics				520	520
Administration			250	700	950
Unforeseen				450	450
Total	1,000	11,765	29,070	44,300	86,530

Source: Olsson (1995).

In the first part of this chapter we described how the research framework developed. It is now interesting to compare notes with another from a different angle (Olsson, 1995, p. 63):

"In 1976, there were virtually no research activities in Mozambique and only remnants of the various research institutes remained. This was the situation when SAREC entered into a dialogue and was prepared to discuss a long-term bilateral collaboration. (...) The natural discussion partner and focus for SAREC support was UEM (...)"

Olsson report reflects the perception of UEM capabilities and capacities as seen by an outsider but interested partner. It presents some penetrating insights on the calibre of research environment and products.

UEM capabilities and capacities are reported in periods with very illustrative titles:

The period 1978 to 1979 received a title "Immediate concerns and ambitions", and the period 1980 to 1985 "Preparing the ground for research" (Olsson, 1995 p. 63). The next period next was summarized as "Building capacity for research" (p. 65).

For all the periods the main features of academic sectors and central institution are described as perceived by SAREC. The evolution of SAREC support from funding a single UEM sector to funding several sectors and cross-institution functions across UEM (like for such as "Library", "Administration", "Maintenance workshop" and "Travel fund") not to mention the "Open Fund" to stimulate research in areas where capacity was embryonic is also reported. The funding tools utilized have become more involving and sophisticated, moving from funds solely for disbursement by UEM to "Collaborative Agreements" with other academic institutions engaged on the sandwich research programs for UEM's staff training, but controlled by UEM.

One, if not the most important, aspect of SAREC's approach was understanding the process being built and its commitment to it (Olsson, 1995, p. 61). "SAREC started its support to the university in 1978 when there was virtually no capacity for research in Mozambique. The early support favorably contributed to the process of preparing the grounds for research, mainly through stimulating the recruitment for research data and through securing important data. Six staff members who benefited from this early support returned to create nuclei of research environments after PhD work abroad.

From 1988 the efforts to create a basis for research moved toward organised research training and the build-up of libraries, laboratories and maintenance functions. (...) SAREC's support was granted to comprehensive university plans and became the principal means by which UEM developed structures for research administration.

The physical conditions for research have improved and some useful databases have been produced. A model for home based research training of academic staff within a collaborative project has developed. In some cases training scholarships have been combined with SAREC-financed field work. In 1993, some 63 academics were involved in SAREC-financed research. 34 were enrolled in Master's or doctoral degree programs and 3 of these defended their theses during 1992/93.

It may be concluded that SAREC has contributed to a growing potential for research in some UEM faculties, particularly in areas somewhat peripheral to mainstream development efforts. It was not found feasible to offer funding for predetermined research areas. Instead, the funding approach of "watering in the desert" and "nursing seedlings and plants" was chosen".

SAREC's support not only in financial resources but also in information

for establishing scientific contacts with "collaborative institutions" and in advice for structuring research work was extremely valuable for UEM aspirations. An important part of this support came from SAREC's concept of "Research Development" again described by Olsson (1995, p. 82) as linking the following: "For a viable research environment, a number of components are needed. (...) Competent scientific leadership is perhaps the most important component for creative research. In most sciences, a critical mass of researchers in related fields is also necessary. The term "excellence" is used to describe such groups although, in an international perspective, "excellence" is reserved for a few extremely advanced groups only. "Qualified research" is used to illustrate a situation where a researcher is qualified to perform a disseminated research independently. In order to reach these levels, there must be research training and a suitable research infrastructure must be in place. Finally, research activities require a basis for research. Recruitment of young researchers is essential to stimulate and sustain a creative research group. Scientific information and exchange are indispensable elements, as well as equipment and tools for the retrieval and analysis of data. Furthermore, the research group must have access to organised data and depend on scientific conferences, journals, and publishers for the communication of findings and results. These components interact, and all are required for fruitful research to develop".

Olsson conceived a "hierarchy of research development" (Olsson, 1995, p. 83) (See table 4.4):

Table 4.4

Research hierarchy

Ranking	Research hierarchy	Requirements
****	Excellence in research	<ul style="list-style-type: none"> * Scientific leadership * Critical mass of researchers
***	Qualified research	<ul style="list-style-type: none"> * Post doctoral research & dissemination
**	Capacity development	<ul style="list-style-type: none"> * Research training * Scientific equipment
*	The basis for research	<ul style="list-style-type: none"> * Recruiting for research * Scientific information * Databases * Research administration

Source: Olsson (1995).

When evaluating SAREC's support to UEM, Olsson applied the "hierarchy of research development model" both to the funding approach as well as to the estimated utilization of SAREC support. For the purposes of this thesis we will analyze the evaluation on the estimated utilization of SAREC's support (Olsson, 1995, p. 85):

Table 4.5

UEM's research hierarchy by use of SAREC funds
(for thousands of Swedish crowns)

Ranking	Research hierarchy	1978/85	1986/90	1991/94
	Amount allocated --->	13,160	29,070	44,300
****	Excellence in research			
***	Qualified research	23%	12%	8%
**	Capacity development		34%	58%
*	The basis for research	77%	54%	34%

Source: Olsson (1995).

SAREC's concept of research hierarchy and its expanded interest in

research funding at UEM made this agency the biggest research sponsor of the institution. For example, in UEM's Annual Report for 1992/1993 (Olsson, 1995, p. 58) SAREC was funding 68.75% of UEM's research activities, the other funding sources being: national government (with 3.125%), the Ford Foundation (with 9.375%) and NORAD (with 18.75%). The total budget amounted to USD1million. The relationships between UEM and SAREC were shaped by a constant dialogue and an open discussion on mutual weaknesses and strengths and on what and how would be fundable and what and how would not be fundable under this relationship.

The value attributed to an activity by the institution/person developing the work for funding, and the value by a prospective funding agency is always different. This is at the heart of all "businesses" and negotiations in the world, whether for for-profit activity or not-for-profit. In the tense situation where UEM researchers and official representatives of the institution were continuously seeking sources of funding for all the institution's work, to have a cool and careful assessment of the quality of the work done and the ways to improve Research Development, was an advantage that UEM gained from its own commitment and persistence linked to the SAREC's posture of "comply with demands but not compromise" any quality values (as mentioned by Olsson in her interview for this thesis (Olsson, interview, 1999)).

The value and complementarity between "Research management" and "Research administration" was clear in SAREC's approach but not so clear in UEM's perception. UEM was influenced by the academic staff's rather veiled disdain of academic authorities and the administration of the University, and with a Mediterranean style of only feeling accountable to the University's Rector.

In SAREC words management working lines were clear (Olsson, 1995, p. 76): "SAREC's policy has been to negotiate with coordinating structures rather than individual researchers or departments. SAREC's support has been

earmarked for research but has been allocated in support of plans formulated by UEM. SAREC's demand for focus incited policy discussions at a central level. With the mobilizing rather than authoritarian spirit that has prevailed in the country, the Secretary of the Academic Council guided the way in which departments, faculties and centres have been involved in the process of planning and selecting proposals. (...) The applications to SAREC have come to build on initiatives and abilities within a policy framework. (...) UEM has also maintained the initiative and responsibility for the collaborative projects involving Swedish scientists. Joint applications are presented through UEM. The Swedish scientists have direct contracts with and report financially to UEM".

Also in SAREC words (Olsson, 1995, pp. 76-77) the administrative working operations were also clear: "Researchers may seek individual grants and engage in discussions with donors but the acceptance of such grants depends on approval by the faculty. (...) As for financial administration, a simple but well functioning system for financial planning and accounting was developed by (...) GEP. (...) In relation to researchers, GEP managed to change their image from controlling to supporting, by providing monthly accounts for each project, a system which also encourages the researchers to develop financial responsibility".

SAREC's contribution to the development of UEM's administration capacity for research purposes was far exceeded by its contribution to other important functions of the institution. This was a case where SAREC saw the forest more than the trees and where UEM was sometimes dealing with each tree and not understanding the whole forest.

Olsson's compounded concept of "Research Administration" (Olsson, interview, 1999) is inclusive of:

- capacity to plan to have funds from several sources including

State funds (³⁸);

- capacity to plan for the use of various resources needed for research activities;
- capacity to handle properly and competently all the resources considered:

- . funds
 - . time management (for teaching - research - consultancy purposes)
 - . facilities (space, equipment and libraries) and their maintenance
 - . incentives for researchers (expressed in career development, opportunities for training, etc.);
- criteria for accepting or not accepting "offers" of grants or "commission studies" if they are not compatible with the development plans of the institution.

In her vigorous expression Olsson synthesized (interview, 1999) the day-to-day dilemma of every researcher and its relation to the general "Research Administration" function where researchers would have the "capacity to use the microscope, capacity to use the library, capacity to publish ... - the problem is the capacity of an institution, and that is very much research administration: the capacity of an institution to organise that there are funds for research, to organise that there is a fair distribution of funds, and time for research, to organise the support functions ... trying to manage between the tasks the University to be accountable ... balancing the whole - that is institution capacity!"

SAREC was the first agency to have the leverage to thoughtfully call

³⁸ An important point of Olsson, (interview, 1999) is the need for State funds for research - as a matter of principle and as a key to development: Research is fundamental for development of the higher learning system - to get national teachers duly qualified they must have research training and if there are no research capabilities in the country this training could only be acquired abroad. Although it is true that Mozambique will be dependent on "foreign funds" for many years, to the ending of dependency demands developing capabilities in-country. National funding for research is, then, an imperative not to be forgotten.

attention of the UEM leadership and officials to the existence of effective "Procurement" and "Maintenance" functions. Olsson noted that (interview, 1999) "Procurement capacity is essential to the country and to the University - procurement is not just fixing things" to be used either for library acquisitions, for laboratory equipment and its normal functioning. Also, SAREC was alert to the pride of UEM researchers and officials, mentioning "when people learn to follow the rules, the common rules they had agreed upon, they also start to depend on that and to see that there is a support function" to build their own working system.

4.2.2

The other history of research development at UEM: Summary

The importance of the insights gained by UEM from its contacts and relationships with the two foreign research funding agencies exceeded by far the importance of securing funds for "Research". It provided useful instruments for UEM in establishment of Research Management and Research Administration functions. Moreover, the skills and wisdom gained by UEM's staff involved in this work over the years (1983 to 1993) were important for the development of management systems in other areas of the University work. Next, we present the usefulness of GEP's work.

4.3

The response of University administration to research development

This section of the chapter tentatively analyses the concept of "formal" and "non-formal" organisational responses to situations and problems faced in regular activities. While solutions, instructions and regulations emanate from the formal organisation, sometimes non-formal relationships between colleagues and occasional sharing of experiences enrich formal structures to improve solutions and delivery of anticipated outcomes. In this chapter we will describe how Eduardo Mondlane University addressed issues of financial management of R&D activities and incorporated it in its formal structure.

When looking at UEM at the dawn of Independence, it is easy to understand the formidable organisational challenges that had to be faced: a) how to shape the institution so that it performed its work routinely and properly? b) where to get the human resources required? A clear institutional example comes from the issues "International Relations" and "Donor participation". Prior to 1975 there were no "International Relations" other than those relating to Portugal, and relations with foreign universities and other institutions were virtually unknown. There was therefore no paperwork and policy implications. The financial implications coming from a range of foreign and national donors participating in the life of the institution was also unknown. The institution had no structured system to take account of a magnitude of resources coming from outside the normal recurrent and capital budget allocations by Government.

4.3.1

How to turn invisible skills into a management tool

The history of institutions is not just a factual account of episodes, but also contains non-tangible factors. The birth of the "Gabinete de Estudos e Projectos" (GEP) (Office of Studies and Projects) was determined very much by a combination of facts and intentions. Certainly, the University leadership wanted hands-on ability to coordinate activities. All supporting services of the institution, such as the printing press, transportation services, maintenance and construction services and also UEM Social Services (comprising all hostels and restaurants and cafeterias of the University) were included.

The non-tangible aspect was the intention to have a firm hand on completely new issues that had not existed in such magnitude in the previous organisational structure of the University: that is all financial resources corresponding to donations of international donors

(⁵⁹).

GEP aggregated not only supervision of the work of the supporting services above mentioned but also had to account for all international funds donated to the University as well as making them available to staff and units of UEM undertaking the activities and to encourage new donor participation in the non academic activities of the university.

GEP was established from the 2nd General Assembly of the University (November 1982) whose final Recommendations presented it as being a unit in the Central Structure of the University, accountable to the Rector and having (UEM, 1982a, p. 28) "to coordinate and supervise construction works projects and the projects involving international cooperation and that do not have a direct link with the academic work, and having also to work with the development of the physical facilities of the University".

Managing GEP was always a job for all seasons because the equation always had more than two terms:

- on one side were the routine and precise functions of an average administration - to manage and supervise all supporting services,
- on the other side there was a need to have a comprehensive, readable and simple accounting system that would give not only a clear idea of the funds in hand and the department or staff person involved. This need came from the responsibility of keeping a clear eye on resources allocated to the University, that were not transferred through the National Treasury of the Ministry of Finances. All foreign funds at the time were directly and entirely donated to the University.
- on a third, there was the intention to find new and capable donors

⁵⁹ The "non official" history also reveals that in February 1983, the thesis author had requested her resignation from the University functions citing incomprehensible demands from the "academic" side of the institution in relation to the means and resources available for the proper functioning of the University's administration (Diniz, 1983). The Rector, Fernando Ganhão, wrote a letter to the thesis author not only not accepting the resignation but also indicating that he was confident that working in the new "Gabinete de Estudos e Projectos" (Ganhão, 1983, p. 2) "with your spirit now renewed by the general knowledge you have from the whole university requirements you will be able to use your talents and knowledge to capture more resources and friends for the University."

to support non academic activities;

- finally, everything should be pulled together as a day-to-day operation and systematically put into place as a regular process based on hands-on experience.

Thus, GEP looked both to the routine and the exceptional - to old as well as new projects. GEP's multiple-tasking mission made it the location where new approaches to organization were tested. It was the place where the Rector would go if he needed rapid planning statistics or a fast proposal for donor funding. It gained a reputation for being a proactive unit, providing fast response activities. It was also the place where the financial and administrative systems for research started to be implemented.

The next section of this chapter will address the two key wings of GEP's work: a) management and supervision of the support activities to UEM units, and b) financial administration of research activities and its direct and indirect consequences in other spheres of UEM's general financial administration and work. For the first, below, we make only a summary whereas for the second we make a thorough description of the systems put in place.

Support activities

A summarized description of the units under GEP's supervision is presented focusing only on issues that led to GEP's evolution and its integrative role:

- The Printing Press immediately after independence received a grant from Dutch cooperation to re-equip the workshop, enabling it to have offset and duplicating facilities as well as other materials for students and teachers. In 1990/1 the Press benefited from a grant from the Ford Foundation of updated computers and other scanning equipment. Presently, the Printing Press is working in collaboration with UEM's Bookshop - this

wing was developed under a WBank project ("Capacity Building Project"). It required both financial and pro-active administrative management.

- UEM's Maintenance and Construction unit until 1992 was involved in activity to maintain the physical premises of the university and do construction work in several fronts. Examples of prominent works were the case of the recuperation of an 11 floor building for a students hostel and the recuperation of an old historical building in town turning it into the National Coin Museum.

GEP also played an implementing role for several other "non academic" activities necessary for the proper development of academic work. These skills were given to GEP because of its work with foreign donors as well as its key role supporting activities at UEM. GEP tended to play a bridging function inside the university for cases where it would be required both to have the insights of International Relations ⁽⁶⁰⁾ and also to incorporate the views of the services of the institution that would later be responsible for those activities - typical cases were:

- the Basic Sciences project ⁽⁶¹⁾ where UEM had to present an appropriate proposal to the European Union and also had to negotiate and implement the complex activities associated with the "Basic Sciences Project".
- the "Beehive Project" ("Colmeia") where GEP was instructed to prepare a construction project for new hostels, in the university campus, to be built with Soviet funds. This project envisaged the accommodation of approximately 100 students per hostel in a combination of hostels all on the university campus. It was conceptualized by GEP and all architectural drawings for construction prepared under GEP's supervision.

⁶⁰ The International Relations Office dealt with all Technical Assistance matters (execution and supervision) and all legal consequences of International Cooperation.

⁶¹ The general objectives of this project were to up-date and ameliorate the knowledge and skills of students, when coming to the university for the first time, in the areas of Mathematics, Physics, Biology and Chemistry. This project was designed in collaboration with the Free University of Amsterdam (Netherlands) and got funding from the European Union to build laboratories for the teaching of Physics,

- The Social Services of the university had catered since Independence for the hostels. While the hostels and refectory and canteens ran as an "accommodation + food and beverage" service funded through the government grant, the setup of the scholarship fund and its normal operation required a different and thoughtful approach. The scholarship fund, initially funded with Government funds, later started receiving contributions from Australia, Norway and also from Sweden. Those contributions were extremely useful to top up the national funds, providing students with a complete scholarship with monthly personal allowance, food and accommodation and payment of university fees. Partial scholarships also existed.

In Chapter 2 it is mentioned how sensitive and crucial for national cohesion this scholarship fund was, to keep up the intake from the centre and north of the country as well as from poorer students.

In 1989, management and supervision of the scholarship fund moved from Social Services to the Academic Registry Office and GEP had to be involved in the process because of the international funds commitment.

4.3.2

GEP and financial system change: The first results from a tool for research management

This section describes the financial system and related processes put into place at GEP. The existing financial system of the institution was modelled to account and report on funds allocated through the Ministry of Finances. It was not designed to accommodate any other service functions. The system was quite rigid. The distribution of funds through the departments and corresponding authorization for disbursements was shaped in colonial days with small latitude for departments to have a strong say. Treasury functions were strictly confined to the central Department of Finance of the University. All accounting processes were done by hand. Consolidation and data checks between central and

departmental structures were made occasionally, mostly under the initiative of the departmental structures when they wanted to know about available funds. Qualified human resources for administration of the institution were scarce. Mostly of the activities were conducted either by automatic replication of practices "seen as being done" in the colonial days or by decision of the current head of sector.

GEP was confronted with a simple choice: to have a system similar to the budgetary control of the central Department of Finance or to "invent" a new simple system taking advantage of the new technologies of the times, even if not completely available at that time.

The first action of GEP was to get its hands on a computer. As all the work was at that time done with electric calculating machines and handwriting it was decided to make the most of the impossible and get tools to improve working systems to process data and improve legibility of information. A Digital Rainbow (⁶²) computer was purchased in early 1984 for GEP and another similar computer purchased for the "Secretariat of the Scientific Council". By current standards they were very slow. However modest, it represented the beginnings of introduction of computer resources at the level of the University's administration (⁶³).

A parallel and second action was to establish with the "Secretariat of the Scientific Council" what we called working guidelines. This non-formal agreement comprised not only an understanding of implicit mandates of both units, where one unit would not ignore the other on issues coming from their normal operations. For example, payments in foreign currency should follow legal regulations of the country. This was understood to be a matter to be dealt by GEP. Even if the research sector or individual researcher argued to the Permanent Secretary of the Scientific

⁶² The Computer Centre of the University had at that time the commercial rights to represent and provide after sale services for Digital computers in Mozambique.

⁶³ Information started to flow at a higher speed between GEP and the Permanent Secretary because of the compatibility of the computer equipment in place

Council that the regulations were rigid the Permanent Secretary would never dismiss the GEP Director. Overall there was a clear mutual understanding that academic and administrative/financial operations of the research projects were different sides of the same issue ⁽⁶⁴⁾ ⁽⁶⁵⁾.

As "the biggest things demand the simplest language" ⁽⁶⁶⁾ a third and most important action was to set up a simple and readable accounting process. It was based on proper process and supporting documents and targeted not only the management of the institution but principally the researcher and the research sectors involved. When the GEP's Director was appointed for the position among the first things presented to her attention were a sizeable sum of money, in the bank, coming from a donation from SAREC, established under a written agreement between SAREC and UEM. This donation initiated long time support to UEM and paved the way for further donations, from other agencies. Research activities came to be significantly funded by foreign agencies - UEM would pay for the national salaries of the people involved, for space and for national official (or "formal") management of the work to be done while all other expenses would be covered by the funds from the foreign agencies concerned.

Two key assumptions underlay this accounting process:

- a) The authorities and audience targeted were not only the "management" of the university (senior management at the centre but also and foremost Deans of Faculty + Heads of department + Individual researchers). All of them would have timely and precise information on the resources budgeted and available.

(information would be transferred on diskette).

⁶⁴ It is interesting to note that this attitude was adopted not because of any training session or attendance at workshops on the subject, but merely because of the comprehension both players had on the same subject.

⁶⁵ The very first "big activity" done together by the two units was to prepare a funding proposal to SAREC where both sectors learned what might be the best stand to take towards not only the funding agency but also the institution's researchers regarding the future of the cooperation.

⁶⁶ Roger Fry, 1916.

- b) Information would flow periodically so that it was useful and timely for researchers and administrators.

As a fundamental part of the process to conceive the new accounting system two words/expressions were anchoring the new system: "simplicity" and "accuracy" embedded all information to be produced.

An accounting system, based on D-Base software, was developed to work on the existing computers, and was modelled on the principle that:

Budgeted funds

- disbursements

= Balance of funds available

The system was a one entry accounting system without link to any other d-Base structure so that it could be later incorporated into the University accounts. Also there was no separation between "budgeted funds" and "cash funds available" because donor agencies did not provide all agreed funds at once. The connection between budget and resources available in hand was not prevalent at the time and so there was no indication of this sort in the accounting system, although it was borne in mind.

But the system was devised so that it:

- defined a code series for all projects, with three letters and 4 figures (eg. ENG 0197 meaning "Faculty of Engineering", project No. 01 from the year 1997);
- defined a hierarchy of sectors (under the same funding agency it would be possible to have all the projects of the four departments of the Faculty of Engineering and to total them by department and by Faculty);
- introduced the complete name of the project (3 lines of characters) or the activity being accounted.

These three items would head the financial data, further registered in a matrix of 9 line items with three columns.

- A 9 line itemisation was devised for budget control. The first

column had the funds budgeted (available), the second column posted all disbursements registered, while the third column showed the balance for each budgeted line item. Totals for each column were provided. A list of concise descriptions of each type of expense to be accounted was also available at the bottom of the "statement". The "statement" would also have a date at the bottom noting the statement period ⁽⁶⁷⁾. (See example in Box 4.1).

Box 4.1

Example of Financial Statement

FINANCIAL STATEMENT						
Project code: ADM0196						(in SEK)
Funding from: SAREC						
Sector: Directorate of Finance						
Project title: Improvement of Financial Administration at Eduardo Mondlane University						
Project leader: Célia Diniz						
Budget lines		Budgeted funds		Disbursements		Balance
1.	Equipment	0.00		0.00		0.00
2.	Minor equipment	0.00		0.00		0.00
3.	Consumables	40.000.00		3.500.00		36.500.00
4.	Travel	75.000.00		121.810.00		(46.810.00)
5.	Allowance field work	0.00		0.00		0.00
6.	Subsistence grants	0.00		0.00		0.00
7.	Salaries	0.00		0.00		0.00
8.	Conferences	0.00		0.00		0.00
9.	Literature and publications	25.000.00		0.00		0.00
Total		140.000.00		125.310.00		14.690.00
Item	Day	Month	Year	Document	Ref. doc.	Amount Comment
3	30	1	1997	01.01.96	2000	40.000 Amount for Year 1
4	30	1	1997	01.01.96	2000	75.000 Amount for Year 1
9	30	1	1997	01.01.96	2000	25.000 Amount for Year 1
3	30	1	1997	01.01.96	2000	2.500 Admin. charges
4	31	9	1997	19.09.97	1661	62.244 Travel to UK
4	31	9	1997	23.09.97	1662	19.861 Travel to UK
4	31	9	1997	23.09.97	1663	39.705 Travel to UK

⁶⁷ For control purposes, if the amount of funds in hand (deposited in the bank account) would be equal to the amount of funds budgeted for all projects than the balance of all projects would coincide with the amount of funds in the bank account!

FINANCIAL STATEMENT

Year: 1997

Month: December

Accounted by:

Certified by:

Source: Universidade Eduardo Mondlane, DFIN/0.1/01.98, 22.February.1998

A pilot phase of the tool and system was put in place where all SAREC projects at the time received a code. The first statements started to be produced and sent to all researchers plus their departments head and also to the corresponding faculty. An extra copy was sent to the Permanent Secretariat of the Scientific Council. From the pilot to the final inclusion of all research projects registered in GEP, at the time, the transition was very quick because of the success of the pilot phase.

What were the major features of this simple tool?

* From the institution's financial and administrative point of view the following were available:

- a) A simple but accurate and precise account of all funds available for all individual research projects. This information could be agglomerated to have the funds budgeted and spent by departments or by faculties.
- c) An easy process to get data to prepare financial reports for all donor agencies (in this case, SAREC and then IDRC).

* From the point of view of the researchers and their corresponding departments and faculties open and transparent information on the funds budgeted and on the funds effectively spent for each research project became available. Flows of activity could be followed and types of expenses incurred could also be analysed.

The directness and precision of all information supplied to the various University players on the scene surprised everyone very much but also gained their appreciation. Moreover, it helped to improve coordination of the research in place and to compare descriptive reports of activities with the financial execution of each project.

References to the system, in foreign reports, showed strong appreciation for it: Olsson mentioned that (Olsson, 1995, p. 77)

"This system was designed to administer the SAREC funds but has later been applied to the entire university budget, including funds transferred from other donors. It should be noted that most of the SAREC-funds have been transferred to Mozambique to be handled by GEP, which has shown a high degree of accountability".

Although everything looked efficient with good in-house control, in fact it was not so easy to give information to donors because the available data produced had to be transformed into the format required by those agencies. This aspect was taken up by the University leadership in its quest for a single report of all University accounts to be presented to all donor agencies - "a simple uniform reporting system" (See in Chapter 3).

Also, every donor had its own pace and style of work and communication lines inside the recipient institution (the local university, in this case) could differ from donor to donor. For example, SAREC would look carefully at institutional capabilities whereas IDRC seemed to be more project concerned. Another example was that while SAREC would send their program officer, twice a year, to the university grounds, and occasionally their accountant or officer dealing with financial and administrative issues, IDRC would rarely send their "Controller". The Programme Officer was the person who regularly visited Mozambique. In terms of communication lines differences could also be noted: SAREC's financial and administrative officers would not refer to researchers but to GEP (by phone or by fax in case of a working need!). Any contact with researchers, their faculties or the research coordination sector at

UEM would be left to their program officers. The program officers would deal with GEP on financial and administrative issues on their visits. For IDRC no contact between GEP and the "Controller" would take place between visits (once a year!). On the other hand, their program officer would be in constant contact with the university's researcher or faculty (⁶⁸).

In 1984/1985 SAREC made a complete revision of all funds donated to UEM. It moved towards having the UEM proposals assembled according to a model agreed between UEM and SAREC (⁶⁹). SAREC's approach evolved significantly so that:

- a) Before the end of the two-year agreement a check on all the funds available, by project, would be done involving UEM (GEP) and SAREC's program and financial officials;
- b) The preparation of a new proposal for a new two-year agreement would start with SAREC consulting UEM, indicating their preferences for the best format for presentation of budgets for each activity to be covered by this institution. This set of indications would be introduced into the accounting system available at GEP and would work as the basis for the new agreement data;
- c) GEP and the Secretariat of the Scientific Council would instruct all sectors and researchers to present their proposals according to a standardized format. After receiving all information from Faculties and Sectors all narrative and financial data would be screened and checked. GEP would introduce all data into the software package and work on the complete funding proposal incorporating all sectors of the university that were agreed to be included. Obviously, all financial data was easy to check because of

⁶⁸ Ford Foundation had yet another different working pattern. It would seem that this agency would note the capabilities of the place where their funding would be allocated (faculty for example). For field visits their program officers would contact the university and would deal with program issues as well as with financial and administrative issues. For communication purposes all contacts would be with the corresponding program officer - in years of work I have only rarely heard of the "Controller" or the "Grants" person... And so on, donor by donor.

⁶⁹ From this time on, useful contacts for checking figures on funds available and remittance of funds from SAREC to UEM have always taken place between UEM's Financial Administration (GEP in this case), and the corresponding officers in SAREC's organisation.

its format and comprehensible presentation.

All researchers and sectors of the university would receive a copy of the final proposal presented to SAREC. After SAREC's decision and detailed information on what would be funded, this final data would again be introduced into the software system available and compared with the previous data (for the proposal phase) and adjusted according to SAREC's decision.

An important feature from 1991 was that UEM took responsibility, under SAREC's sponsorship, for the paper work for contracting with the "collaborating institutions" (the non-Mozambican "northern" institutions ⁷⁰) that were either supervising and providing the grounds for postgraduate degrees for UEM's staff or for acquisition of documentation). For all institutions involved in the two-year agreement proper contracts would be prepared to enable SAREC to process the corresponding payments. SAREC passed to UEM all indications on how to administer these matters and so UEM/GEP prepared the contracts and sent them to the relevant institutions and to SAREC for final payments. In this way, UEM gained more control over the situation of the "northern" partners.

The scope and variety of activities funded through SAREC, while "research" linked, were quite diversified. Not only were research projects funded (including all acquisitions of equipment, literature and supplies, and all expenses for travel purposes and related expenditures) but a fund for "international contacts" was also set up to cover all travels for UEM's academic staff to attend scientific meetings outside Mozambique. Over time, the SAREC agreement started to include, also, large sums for literature acquisition (periodicals and books for the University's libraries) and later for complete higher education graduate training of Library staff. Starting in 1991 the agreement also catered for

⁷⁰ The Swedish or international institutions that were involved in the activities of each project for which funds had been budgeted as part of the

"administration" expenses for updated computer equipment.

In 1986 the projects and activities funded by The Ford Foundation were also introduced in GEP's accounting scheme, covering not only research but other supporting activities like acquisition of documentation and also "International contacts" for teaching and general university purposes, the upgrade of the Printing Press as well as staff development activities.

At the end of 1990 all funds donated by foreign donors to UEM, were accounted through this system. There were not many donors but a considerable amount of money: IFS - International Foundation for Science, IDRC, SAREC, the Commonwealth Secretariat, and Ford Foundation were the best known ones. In 1993, all funds of this nature, including a donation from NORAD for institutional support of research activities, and a big donation from SIDA for budget support covering various activities and sectors were all included in the existing accounting system.

The development of this simple financial/budgetary system gave UEM more control over its funding sources, at a time when foreign donor contributions were becoming a significant, and potentially fragmenting, influence at the institution.

In January 28-31, 1991 GEP organised a workshop, attended by senior administrators of research institutions in Southern and East Africa, to discuss issues of financial research administration with the aim to better inform researchers of resources available. This meeting was inspired and funded by SAREC (UEM/SAREC, 1991).

All the visitors to Mozambique were impressed with the simplicity of the accounting system devised by GEP. Their institutions had no

agreement.

systems which provided clear and simple information to the researcher. The systems only served the interests of the financial departments of their home institutions.

The objectives of the workshop were to share views and experiences on:

- the concepts and objectives of financial and scientific research reports;
- problems related to the administration of donor grants;
- information/communication lines opened between researchers and administrators;
- relationship between donor and recipient institutions; and
- future trends in the management of university research.

The participants to the workshop came from:

- Ethiopia: from the University of Addis Ababa, the Agricultural University of Alemaya and the Ethiopian Science and Technology Commission,
- Kenya: from The Centre of Insect Physiology and Ecology (ICIPE),
- Mozambique: from the Eduardo Mondlane University,
- Namibia: from the Academy,
- Tanzania: from the University of Dar es Salaam,
- Zambia: from the University of Zambia,
- Zimbabwe: from the University of Zimbabwe and
- SAREC: two officers from the Regional Research Office in Harare, Zimbabwe.

The system in place at UEM was presented in a full session where simulations were made in the "old" computers installed in GEP (but working quite well...). Its clarity and accuracy amazed everyone.

As an aside but still relevant note to this chapter Coombe (1991, p. 36) in his report on Higher Education in Africa said "The Eduardo Mondlane University of Mozambique (whose own research administration

system is highly regarded) will host a conference on university research management for SADCC region, funded by SAREC". This quote refers not only to the above summarized workshop but to the accounting system conceived by GEP.

4.3.3

GEP and financial system change: the expanded value of a simple management tool

Looking back to the way GEP operated it is quite amazing how a university unit with so many important responsibilities had been able to do its work without typical supporting tools as used in for-profit activities like cash flow projections and/or consolidated plans of activities linked with financial plans for funds release. Every researcher or head of the unit receiving support could act independently and could request GEP for disbursement when they wished.

The variety of types of disbursements and also the continuous emergence of similar operations throughout the year did not give much chance for GEP to evaluate or prepare planning tools to support its work. Also the richness and the detail of what is a Research Financial Administration for Higher Education would some times get lost in the vast array of things dealt with by GEP.

Because of the financial implications of the international relations existing at the University, initially rather informally but later quite formally, all sectors at UEM started to send to GEP information on other types of international cooperation making GEP a kind of "shadow" resource databank for information on international projects existing at the University. These were utilizing different legal instruments for their operation. Bilateral cooperations (coming from country to country agreements) were mostly of the Technical Assistance support type ⁽⁷¹⁾; multilateral cooperation

⁷¹ SAREC and SIDA would be listed here as well as the Dutch Cooperation and other similar country agencies.

catering for United Nations agencies projects (⁷²) and later for The World Bank projects; direct cooperation would cover donations straight from the donor agency to UEM (⁷³).

For the preparation of the 1990 National Budget the Ministry of Finances instructed institutions to prepare their data following a completely different form of the previous years, trying to incorporate all the information in their budgets on the activities taking place, whether or not funded through national funds allocated to the institution (⁷⁴). The University was well placed for this exercise: UEM's Directorate for Economy and Planning and GEP joined efforts, taking advantage of the software utilized for the accounting of the cash funds donated by international agencies. It was not exactly "a piece of cake" but enormously simplified the task: According to the categories defined for the budget it was possible to introduce every faculty or unit as a "project" and get the totals for each category. Obviously, it was necessary to have some information aggregated manually but overall, this was an enormous improvement when it is considered that in previous years you would have big A3 size maps, with columns, all registered manually. For the first time in its entire life Eduardo Mondlane University prepared a complete budget (recurrent and capital operations) for the fiscal year 1990 with all international cooperation activities and projects by the side of the national funded activities. This exercise also took place in the years 1990, 1991 and 1992.

When the first budget as described was made, it was the first time the University leadership had a figure of the total funds necessary to run the entire yearly operation of the institution. Never in the life of the university had such a figure existed before! The

⁷² UNFPA or FAO or any other agency of this kind and relation would be listed here. The same would apply to The Commonwealth Secretariat.

⁷³ IDRC and The Ford Foundation would be coming under this umbrella.

⁷⁴ The Ministry of Finance officials, used the phrase "shadow budgets" for

information on the dimension and variety of all players ⁽⁷⁵⁾ became visible to the University Management and Administration. The understanding was not absolutely complete but the information available had its richness! The information presented in the UEM's 1st Annual Consultative Assembly came from this resource.

The size of the resources involved and the variety of forms of contribution, management and execution (in cash or in kind; projects implemented by special units funded via each project; or through the institution as part of the day-to-day operation) made GEP realize and understand how the needs of financial control in the University should evolve and how the existing tools, at the moment, were so very insufficient and modest! In Chapter 5 the attempts to change the complete UEM accounting and financial system will be described.

All the work done by GEP during its existence was done by 4 people at the core centre of the unit (GEP's Director + 1 junior accountant + 1 junior administrator + 1 junior secretary).

4.3.4

GEP and financial system change: Conclusions

UEM's research development was a learning zone for the whole institution, and even other institutions in the region. Research development at UEM came to integrate institutional research project development, staff development, and so on in an extremely integrated. Unusually, it was research rather than teaching which became the area to integrate institutional objectives and management skills.

budget support not incorporated in the Ministry of Finance budget.

⁷⁵ From the institutional point of view the players were not only Eduardo Mondlane University but also the national Government (the main national funding agency and "owner" of the institution), all partner institutions and other governments funding and collaborating with the university.

But also, from the outset, another group of players could be noted: the academic staff, the administrative and supporting staff and finally students from all over the country; also, the involvement of the University with the productive sectors and the services provided to the outreached community became more visible; and as a last note, the "production" of the University in graduated students per year started here to be read in cost-efficiency terms and in its financial implications.

The UEM/SAREC relationship was the main, but the only learning experience. In the UEM/SAREC relationship, the lesson was learned that project administration could be integrated with programme strategy and administration, and most importantly with institutional and organizational capacity building. These three layers gradually evolved to work together, using a strong and innovative collaboration between academic and administrative systems - joint initiative and creativity was key to UEM's pro-active ability on research.

Three other key points on the same relationship were also important: firstly, the firmness of UEM's and SAREC's positions and the continued dialogue between organizations attempting to reach "agreed areas" between their positions; secondly, the openness of each partner not having "hidden cards" under the table, discussing issues in their entirety. And thirdly, a comprehension of "processes" and the time and details it takes to build and incorporate them into organisation routines.

GEP's performance was a part of the overall functioning of the University where the lessons and experiences coming from contributions of foreign donors are learned. Table 4.6 gives SAREC's contribution as an example. The university did not really notice that a second big treasury existed in GEP for all payments and bank transfers being from bank accounts where donor funds were deposited. In financial terms this should have been a case for concern and for proper financial controls.

Table 4.6

UEM and SAREC and GEP

UEM's general organisation	SAREC working periods	GEP's periods
1975 Independence		
1 May 1976 Changing name to become "Eduardo Mondlane University"		

UEM's general organisation	SAREC working periods	GEP's periods
1978 Establishment of the first Committee for Scientific Research	1978 First grant to IICM and Archaeology	
11-13 November 1978 1st General Assembly	1978/1979 - the period of immediate concerns and ambitions	
Sequentially the Central Committee for Scientific Research was established and vanished with time...	1980/1985 - the period for preparing the ground for research	
A Committee for Scientific Research was again established!		
1982 PPI and the plans for developing the country		
November 1982 2nd General Assembly		
Setup of the Permanent Secretariat to the Scientific Council		Setup of GEP ("Gabinete de Estudos e Projectos")
December 1988 National Workshop for Research and Development	1984/1985 Review of all grants made to UEM - start of continuous contacts between SAREC and UEM Research Management and Research Administration officials	Preparation of UEM Yearly budgets for 1990 and 1991.
8-9 May 1991 1st Annual Consultative Meeting		International Workshop for Research in January 1991 Preparation of UEM Yearly budgets for 1992 and 1993

Source: Thesis for M. Phil. degree (Open University) by Célia Diniz

To have a unit at the university like GEP working on all kinds of functions and services, reflected the way higher education institutions sometimes look at themselves and think of themselves organisationally: in a way it could be analyzed as utopian. GEP had very different functions in the same unit requiring very different approaches and management styles. Eventually, it did not allow for proper efficient management and administrative performance.

All learning regarding "International Cooperation" issues and financially

related matters came from day-to-day operations. Details of "how to check on the remittance and arrival of funds in the university's bank account from donor X or Y or Z", or "What are the next steps to have an agreed proposal concretely becoming an official agreement and with clear dates of validity", or "the paperwork differences and similarities between an American foundation donor and a bilateral donation from a Scandinavian country" were learned by experience and by a continuous trial and error process. All the know-how retained by the people working in GEP was based on this live working experience.

GEP was working for researchers and for research activities but did not have a proper financial administration catering for research activities.

The work done suited the needs of the moment but it is also true that the university missed a great opportunity to enhance this tool of management.

The supportive role of the university administration was not understood by the institution and not enough attention was paid to improve its functioning and performance. Overall, the functioning of the administration received little attention and care, and the usefulness of all the products obtained from such services were not completely valued by the UEM community. We argue that a key reason is that in African universities, due to their newness and purpose to be up to worldwide standards, most of their academic (and senior administrative) staff have been exposed to other universities in the world when getting their postgraduate degrees. This exposure while relevant for academic training may have not exposed the African staff to detailed managerial and organizational issues because they were experiencing the foreign universities life like students (even if Postgraduate students!) and not in the painful and dull details of every day administration.

It can now be argued that the difficulties experienced by GEP during 1992 and 1993 came from a combination of factors:

- a) Increased work load - not only to keep the regular operations

of all functions under GEP's responsibility but also trying to cope with the transition process taking place at UEM at the time;

b) Confusion in the new communication lines in the structure with the Rector and the two Vice-Rectors issuing instructions that conflicted with each other, with university sectors choosing to address them according to their preferences;

c) Lack of capacity to accommodate all the strategical, planning and execution issues in a required reshaping of the financial structure and operations of the institution (⁷⁶).

These factors should be taken into account as lessons to be learned for any future administration units in any University where changes are being implemented. Everything has its limits and a planning process based on conscious team work is the pitch for a good working performance.

GEP lasted until the end of 1992 when it was merged into the Finance sector within a new Finance Directorate. The consequences of this merger are reported in Chapter 5.

⁷⁶

It is interesting to note that the financial operations of the University and all the accounting registration remain even now as in 1993: 1) with the national Government funds being disbursed according to the instructions of the Ministry of Finance; 2) with the funds donated by foreign agencies being paid from a "hidden" second treasury also in the Directorate of Finance but completely separated from the national Government funds and operated by different people (the same accountants that were working with GEP!); 3) with accounts not being integrated in consolidated ledgers for all university operations.

5.

The relevance of the financial system to a higher education institution

In this chapter the improvements introduced into the financial and accounting systems of Eduardo Mondlane University will be analysed. In this way we will highlight the relevance of systems to empower management decisions and to perform adequate evaluations of the institution's performance.

The UEM case, in its various features, is suggested as applicable to any other higher education institutions in any part of the world - the complexity of systems and need to have them function in a timely and routine manner is mostly overshadowed by more visible academic operations, like delivering courses, admitting students or having better trained teaching and research staff.

At the beginning of the chapter key concepts are laid out for the process and products delivered by the financial and accounting systems to UEM management and all stakeholders. Those concepts are at the heart of the "accountability" mechanisms as envisaged by the thesis author.

An evaluation of the financial and accounting systems at UEM in 1992 will be the centrepiece of this chapter. Finally, preliminary considerations on why implementation of the recommendations was not as successful as hoped will also be included.

5.1

The starting points

At the beginning of the 1990's Eduardo Mondlane University was at a complicated crossroad:

- it was the only higher education institution in the country;
- it was geographically placed in the far south of the country with no delegations anywhere else;
- the general political and economical situation was irreversibly changing from a centrally planned model to a market oriented one. The political landscape was paving the way for the appearance of new political parties;
- the outcomes of "globalisation" started to appear in the region. The region needed to change from a low-skill labour reserve and cheaper raw materials producer.

The University at the time - despite isolated trials like that devised by GEP for financial and accounting, described in chapter 4, was still being run in a "traditional" way. By "tradition" we include all the non-computerised administrative practices coming from the pre-independence period.

The reliability of the institute's financial and accounting both for the challenges of the present and for future transition, was of crucial importance for good governance and but also for accountability - to materialize the intentions of the institution as described in its first Strategic Plan, Present and Perspectives (P&P).

The author argues that the "accountability" issue was not dealt with by the University authorities in its entirety. The UEM authorities were,

certainly at the beginning of the 1990s, simply looking to have financial reports for donors and funds for teachers, researchers and others. They were not looking further to the mechanisms for production of information. Moreover, they were not spending time looking attentively to the ways that would produce improved data for accountability purposes.

Correspondingly, I argue that the *accountability* concept is not only important for financial accounting, but also relates strongly with the *responsibility* and *authority* paradigms as well. The comprehensive articulation of all those elements are needed for satisfactory and regular management of any institution. Financial accountability has to be coordinated with continuous accurate evaluation of activities carried out by the institution so that resource use is compared with output of work.

It is also argued that, due to the unquestionable dominance of the academic staff in an university, it may happen that "financial & accounting" matters are overlooked and its processes are not consistently included in the organisation's programming. Certainly this was the case at Eduardo Mondlane University where only distant and fragmented notions of these processes were in management's minds. But the concept also encompassed other issues like:

- the role, responsibilities and competencies of the university leadership team, deans of faculties and Centres and other senior managers;
- the operational linkages between a plan of activities and its financial component;
- the production of clear, transparent, readable and timely financial information for the leadership of the institution and other senior managers;

- the existence of clear lines of communication within the institution and ways to overcome any 'noise';
- the effective operation of systems and processes, within institutional structures to provide, support and enable all the above to take place.

In the literature consulted for this thesis it was hard to find materials relevant for study of the intricacies of the financial and accounting systems that higher education institutions should have, although a certain abundance of references was found on desirable income sources for financing African higher education systems and institutions. However, Wright produced a list of useful "tools" for any institution independently of its origin and "tradition" of its systems (1998, pp. 324-325) and said that "Financial management should encompass the following":

- overall control of the receipt and expenditure of all finances;
- financial management of the institution's resources including:
 - preparation of estimates;
 - allocation of resources;
 - determination of an overall cash flow policy;
 - the organization of banking and investment;
 - budgetary control;
 - preparation of annual accounts;
 - the costing and analysis of the institution's development plan;
 - control of cash flow;
 - the maintenance of an inventory of fixed assets and of all furniture, plants and equipment;

- the payment of salaries to staff;
- the supervision, monitoring or administration of the institution's pension or staff benefit schemes;
- the administration of loans to members of staff;
- the receipt, accounting and financial administrations of student fees;
- the administration of research grants and contracts;
- the preparation of cheques and payment of creditors;
- the administration of supplies and stores;
- the administration of all insurance;
- the audit process: internal and external auditing of the institution's accounts".

Wright's article is mostly based on the case of the University of Sierra Leone but his notes are useful, with adaptations, to define a financial/accounting framework for any higher education institution. As he clearly says (1998, p. 324) "the detailed structure of the financial management system in any Higher Educational Institution would of course depend on the structure of the institution and the administrative management therein but the financial management should encompass" the above. UEM, during the period covered by this thesis, clearly did not have a reasonable system to cater for all the above points. Some information existed through manual registrations, but it was not congruent and integrated. In other cases, the information was not available in a simple coordinated form (example: an inventory of fixed

assets including furniture, plant and equipment).

Referring back to the "accountability" issue, Wright commented on the list of tasks above that (1998, p. 325) "the above items bear directly on Financial Management, and give a clear focus on Accountability".

We also include in this chapter a reference to "recommended practice accounting in higher education institutions" for the United Kingdom. In this "recommended practices" document it is stated that (CVCP, 1993, p. iii) "the objectives of published financial statements are governed by the needs of users and potential users. Published statements should give a true and fair view of the institutions's financial position if the statements are to be of use, or relied upon, by users, or potential users, of the information contained therein.

The main groups of users of an institution's reports and financial reports are considered to be:

- (a) the governing body of the institution;
- (b) the funding councils;
- (c) government departments and parliament;
- (d) the institution's employees;
- (e) the institution's students (past, present and future);
- (f) the loan/creditor group;
- (g) other higher education institutions, schools and industry;
- (h) grant-awarding bodies, donors and benefactors; and
- (i) the general public".

The authors point out the main information to be provided by the financial & accounting systems in place and how useful this data is for the people who will read and work with it (CVCP, 1993, p. iv):

"These user groups may have differing needs in details, but certain key

elements, including the general need for accountability, are common to all. The main objectives of the reports and financial statements are, therefore, considered to be the provision of the following information:

- (a) a true and fair view of the financial position of the institution at the balance sheet date and of the income and expenditure and cash flows for the period then ended;
- (b) the income from all sources within the period of the accounts;
- (c) the expenditure on all activities within the period of the accounts;
- (d) the assets and liabilities of the institution, classified in suitable form;
- (e) any known or probable circumstances which might significantly affect the financial position of the institution; and
- (f) how the institution is performing financially, including the adequacy of the working capital, its practical solvency (or insolvency), and its investment performance".

While in Wright (1998) the main accounting and financial elements are described one by one, in the "Statement of Recommended Practice Accounting" (1993) the elements are presented in view of their consequences and contextual impact. We can observe how they coincide in its purposefulness and so support my argument that such elements are important vectors in any higher education institution. In other words: the "invisible" financial and accounting apparatus of a higher education institution has to supply the institution with coordinated and aggregated information that, combined with the data coming from the academic side, has the desired outcome of a more comprehensive management of the organisation.

While the above argument seems straight forwardly 'true', the reality is

that "accountability" is not easy to define and put in practice. It is quite interesting to find that the overarching Higher Education Funding Council for England (HEFCE) states in a guide for financial management (1998, p. 4), that "we recognise that there are differences in terminology between institutions. (...) We have (...) used the words "responsibility", "authority" and "accountability" (...) very precisely (...)". The recommendations have several details but ultimately the definitions are very precise and direct, like (1998, p. 4):

"Responsibility" refers to ultimate responsibility which cannot be delegated" and "Authority" means "the power derived from office" and finally "accountability" refers to the mechanism for demonstrating how delegated authority has been exercised, and for calling to account those to whom authority has been delegated".

Clearly, for balanced and consensual management of any institution, it is not easy to exercise authority, combined with a correct judgement of responsibility, in the context of always being accountable to all parties involved in the process...

What remains a key point for this thesis, however, is that for the academic and scientific performance in any higher education institution, the supporting role of the financial and accounting internal systems in the organisation is irrefutably invaluable. We return to this theme at the end of this chapter.

5.2

Preparing the first credible technical evaluation of UEM's financial accounting system

To comply with the need to improve "accountability", and wanting to have an audit of the institution accounts to encourage more outside donors to

contribute, contacts were established between UEM and worldwide credible firms. At the time there were no services of this kind available in Mozambique and requests of offers were sent to: Coopers & Lybrand - through the Lisbon office; Deloitte & Touche - again via the Lisbon office; Ernst & Young - with an office just opening in Maputo; KGP&M - also with an office just opening in Maputo; and Price Waterhouse - via the Lisbon office.

The requests of offers were prepared by UEM's Director of Finance and the Terms of Reference of the request were designed under the understanding that such person had of the situation rather than of a "technical" and detailed knowledge of the services to ask for. In fact, never before in the University's life had such a thing been requested. In Mozambique, the "auditor's" role was seen as someone investigating crimes and other faults penalised by law rather than having an independent and supporting review of the accounts of the institution, these being the quantitative and monetary expression of a plan of activities in a designated period.

The response of the above firms was interesting:

- Coopers & Lybrand was just opening its office in Mozambique and reacted with a cautious but thoughtful attitude, wanting to have more details on the situation and preparing to assemble a team with "educational" concerns and knowledge, able to monitor and supervise their field work;
- Price Waterhouse responded through its nearest office in South Africa and further contacts would have to take place with personnel coming from that country to Mozambique;
- Deloitte & Touche also did not have a base in Mozambique and reacted quite late; and

- KGP&M and Ernst & Young sent their new Mozambique representatives, showing a noticeable interest in the work and presenting their Mozambican partners as the ones that would monitor and supervise any future work with UEM.

As the evaluation of the responses was left to the decision of the UEM's Director of Finance and because knowing the "in house" and the "in market" capabilities for such work, a decision was taken to rely on Coopers & Lybrand work and collaboration.

5.3

The evaluators approach and report

Coopers had already worked in several locations and sectors of the University and had made an accounting review of systems of an "autonomous" centre (Centre of African Studies), in cooperation with the Finance Directorate staff. Following a detailed and thoughtful set of discussions with the UEM's Finance sector it was concluded that a regular "audit" report could not be issued due to the nature and characteristics of the existing financial and accounting systems. Consequently, it was decided instead to conduct a diagnosis of the systems in place together with a detailed package of suggestions and recommendations to deal with vulnerable situations.

The analysis covered three main areas: a) the regular operations of the institution covering all resources (bank and cash accounts, bursaries, salaries and authorization levels), b) the accounting processes and books, preparation of financial information (nominal ledger, rules and regulations and preparation of financial information), and c) other management implications for the good overall accounting practices and

records of the institution (staff capability, purchasing and creditors control, computerisation, centralisation and autonomy, documentation and filing, fixed assets, stock control, revenue generating activities and projects).

Coopers produced a careful report (1993) with proof of all situations detected and suggestions based on solid reasoning.

The structure of this report did not follow the normal arrangement of themes and conclusions. The strategic issues were not presented right at the entrance of the document! This is not to underestimate the value of the report but to highlight firstly, the compound nature of the main subject. Secondly, financial and accounting issues require a different approach. The thesis author calls here for the supporting role of these systems in the regular decisions and operations of any knowledgeable institution.

The complete 43 page report had 117 paragraphs of notes. Because the paragraphs were sometimes simple and sometimes long with several subdivisions, it may not be absolutely accurate to compare the weight and value of the comments simply by paragraphs (see Table 5.1). But the report is balanced and well structured and evaluated the financial and accounting systems of Eduardo Mondlane University for the first time.

Table 5.1

Coopers report distribution of contents

Subjects	No. of paragraphs
Bank and cash accounts	27
Bursaries	3
Salaries	3
Authorization levels	4
Nominal Ledger	5
Rules and regulations	3
Preparation of financial information	18
Staff capability	17
Purchasing and creditors control	5
Computerisation	6
Centralisation and autonomy	4
Documentation and filing	7
Fixed assets	10
Stock control	3
Revenue generating activities	5
Projects	7
And several appendices:	
- Existing bank accounts	
- Sample cash book layout	
- Check list for new staff engagements	
- Layout of fixed asset register	
- Examples of financial statements	

Source: Coopers & Lybrand (Central Africa) Limited (1993).

5.3.1

Practices found

The main findings will be presented here and in the next sub-section, Cooper's recommendations will be summarised:

Coopers highlighted three areas to be prioritised for any corrective action to be undertaken in the near future: "Bank and Cash accounts", "Bursaries" and "Authorization Levels".

At the beginning of the report Coopers (1993, p. 1) pointed out that control over bank and cash was where "the most serious control weaknesses exist". Lack of regular reconciliation between bank statements and the

records in the cash books was detected associated with lack of regular bank statements and also with the institution's having no policy on the existence and maintenance of bank accounts.

In the *Bank and cash accounts* section Coopers reported (1998, pp. 1-7) that they had identified 9 principal bank accounts for budget and cash controls with records at the Finance Directorate (6 of them coming from the previous Planning and Economy Directorate or from the GEP and the other three relating to the bursaries scheme). A significant number of other bank accounts was also found and listed (22 bank accounts including 3 bank accounts in foreign banks outside Mozambique - all from UEM's departments). Some accounts were opened by "projects" being implemented in the University, funded by foreign agencies and where the signatory of the accounts would be the foreign technical assistance expert in charge of the "project". In other cases the accounts were opened by faculties and centres and Finance Directorate had no knowledge of their existence.

To add to the above it was also found that "petty cash" funds existing in many of the faculties were also in contention (1993, p. 6): "no detailed records of such expenses are kept and no reporting of these expenses is ever done".

The second area proposed as a priority for improvement was the *Bursaries* scheme. This scheme, as mentioned in Chapter 2, was introduced after Independence to provide financial support to higher education students from all over the country, targeting students from families with low incomes. At the time of its inception the fund had a "national identity" purpose and social mission objectives. At the beginning of the 1990s' the fund continued to lower regional differences and development imbalances around the country. This scheme was quite sensitive and there

were serious political implications for it independently of any management and administration concerns.

Table 5.2 indicates the number of bursaries allocated by UEM in different school years, this figure being compared with the students total population.

Table 5.2

Evolution on the bursaries granted by UEM

Description	Year 1990	Year 1993/94	Year 1996/97
Male students	647 + 197	650 + 566	
Female students	140 + 67	123 + 178	
Total bursaries granted by UEM	787 + 264	773 + 744	1074
Students total population	2926	4036	5762
Percentage of students covered by the bursaries scheme	36%	38%	19%

(In each column the first figure represent those with complete "bursaries". The second figure represents the total on "partial" bursaries).

Sources: Universidade Eduardo Mondlane (1991). *Informação Estatística 1989/1990*. Maputo, Mozambique. - Universidade Eduardo Mondlane (1997). *Relatório Anual 1996-1997*. Maputo, Mozambique. - Eduardo Mondlane University (1994). *Annual Report 1993-1994*. Maputo, Mozambique.

The bursaries received funds from SIDA (Sweden), AIDAB (Australia), NORAD (Norway) complementing national funds allocation through the Government.

The scheme was under the total management control of the department managing the Food and Accommodation services for students and the university. This sector had no co-ordination with the Academic Registry and linked directly with the Faculties. The Faculties provided information on student scores, performance and attendance to classes.

Coopers pointed out (1993, pp. 8-10) various weaknesses and some mismanagement of the scheme regarding the control of bank accounts (as previously reported) but also accuracy of records of number and names of students receiving bursaries and on student personal files. Coopers reported that (1993, p. 9) "the risk of unauthorised payments being made in the bursaries section without detection is therefore unacceptably high" and also indicated that (1993, p. 9) "control in the bursaries section is considered to be seriously inadequate".

In the *Salaries* section Coopers found that (1993, p. 11) "the payroll system contains a number of controls and checks" but that there were still "unsatisfactory procedures and weaknesses".

Here, in this section, the issue of having an accounting system on a double-entry basis (i.e. maintenance of a nominal ledger) was first raised - this will be detailed later in this text.

Another issue receiving Coopers attention was the *Authorization Levels* issue where a rigorous call was made because (1993, p. 14) "we noted several instances where the system for authorization of payment had either not been fully complied with or had been by-passed". This issue was called to the serious attention of UEM's management.

The *Nominal Ledger* subject was another issue without such a basic tool it was not possible to establish whether (1993, p. 15) "a) all the payments have been accurately recorded eg. as expenses and b) all receipts have been accurately recorded eg. as donations".

The existing "table of accounts" for the one-entry system prescribed by the Ministry of Finances, was the only tool available to aggregate the

information on the Government allocated funds. All other funds received by the institution would be recorded and accounted in its own "fragmented" mode. This "Table", while shown as the "official" UEM table of accounts (utilized for all recurrent funds allocated by Government), was undoubtedly insufficient for management purposes.

The Coopers review also looked at the *Rules and Regulations* in place from the Government but also from donors. Obviously the "raisons d'être" of the various regulations were different, serving the different interests of their original prescribers. The degree and detail of prescriptions and regulations varied according to the funding source. Finally, the "weight" and "force" of every regulation was sensed differently by different UEM sectors and staff involved in their implementation. In this matter, Coopers also made recommendations for consolidation and dissemination of all rules and norms affecting UEM's financial and other operations.

In the section called *Preparation of Financial Information* Coopers concluded that (1993, p. 17) "The University is presently unable to produce financial statements and other information on an acceptable basis". The recommendations on this important matter are in next subsection of this chapter (").

The section on *Purchasing and Creditors control* received a concluding note mentioning that (1993, p. 28) "it is not possible to ascertain outstanding liabilities and commodities".

" It was not possible for example to have accurate data on a handful of questions that could immediately arise as normal and simple: what was the true cost, by faculty, of UEM graduates? What was the cost of the administration structure (for each of teaching, research and extension)? What was the cost for upgrading teaching and research staff capabilities - to have them qualified as postgraduates in their fields of expertise? What was the cost for the maintenance of the equipment installed at

The *Computerisation* section of the report started with a summarizing note stating that (1993, p. 29) "by comparison with similar institutions, the use of computerised information systems in UEM is generally simplistic".

The section covering the issue of *Centralization and Autonomy* gave recommendations to be described immediately below.

In the section on *Documentation and Filing* it was noted that (1993, p. 33) "all the faculties use the same requisition documentation when applying for funds from the Government or from Gabinete de Estudos e Projectos (GEP). However, other documentation is not standardised across the University".

The *Stock Control* area also revealed that (1993, p. 37) "the university does not maintain a proper stores system to control the majority of its store items".

The *Revenue Generating Activities* section had comments going straight to the soul of the matter (1993, p. 39): "many of the faculties have revenue generating operations of one sort or another. (...) At present controls over revenues are weak. In most faculties: a) little or no recording of revenue is done at point of sale or receipt; b) invoices and receipts are not issued for all sales and are not controlled adequately; and c) takings are not banked regularly nor are they banked intact".

Finally, the issue of *Projects* received comments asserting that they were part of a foreign donor structure (1993, p. 42): "the projects report

directly to the foreign donors on the use of funds. Only some of these reports are submitted to the University for review. Projects normally keep their own accounting records and operate their own internal control regimes".

A list of 22 faculties and department accounts in national banks and 3 other bank accounts in a foreign bank (in Europe) was added to the report. As UEM's Director of Finance, at the time, this was the first time I had seen the banking references of the bank accounts opened in a foreign bank.

5.3.2

Recommendations for a sound future

With findings of such substance and quality it was not easy for Coopers to present a feasible proposal aiming to improve the situation. It would be hard for the University to accept and acknowledge the existence of so many weaknesses either of structural or complementary natures. It was also critical for UEM to admit its weakness and willingness to improve the situation to gain stature and voice.

So in the end, Coopers encountered a positive environment to present all recommendations. All parties interested in the University's activities (the "main users of the institution" as previously mentioned) expected UEM to have a proper organizational structure.

Coopers issued recommendations for each area emphasized. Some were more procedural while others required a strategic approach followed by the appropriate operational follow-up.

The recommendations were grouped in 3 sections but each influenced the other (1993, Letter - p. 3): "a significant improvement in the systems and control environment is required at UEM. Section C of our report covers a number of additional areas that UEM should address. However, the extent to which these recommendations are implemented depends upon the scale of improvements described in Section A and strategic decisions detailed in Section B that UEM will need to make before proceeding with definitive improvements for the University overall".

Table 5.3 presents the sections by themes - with a graphic arrangement that facilitates its reading and future reference

Table 5.3

Coopers report main sections and themes

<p>Section A</p> <p>Bank and cash accounts Bursaries Salaries Authorization levels</p>	<p>Section B</p> <p>Nominal Ledger Rules and regulations Preparation of financial information</p>
<p>Section C</p> <p>Staff capability Purchasing and creditors control Computerisation Centralisation and autonomy Documentation and filing Fixed assets Stock control Revenue generating activities Projects</p>	

Source: Coopers & Lybrand (Central Africa) Limited (1993).

Section A covered the subjects requiring immediate action and consequential improvements, for example:

On *Bank and cash accounts* it was suggested (1993, p. 1-7):

- to start work checking, reconciling and competently controlling the following bank accounts:
 - * the three accounts holding Government funds for Recurrent expenditures, Investment funds and Salaries;
 - * the account for donor funds;
 - * the accounts held in the bursaries department.
- the next working step would be to work with other bank departmental and central bank accounts to establish a policy for "bank accounts"; and to review all accounts based on information collected for the account name + the authorised signatories + the purpose of the account + which accounts should remain in operation and which accounts should be closed.

Coopers even bluntly said that (1993, p. 2) "we would strongly advise against the University increasing the number of accounts in operation until it has all its existing accounts under control".

A tentative timetable (if the University began rapidly making the necessary corrections) shows that a period of, at least, 4 months of full and intensive work would be necessary to move to a different stage of control.

Bursaries received a detailed list of "Controls to be implemented" (1993, pp. 9-10) as well as other general recommendations. Segregation of duties, proper and consistent records, coordination with the academic

area for complete and feasible collection of information on the students performance and attendance to classes are part of the recommendations for this area.

Salaries received also a detailed list of controls to be implemented, with corresponding links to banking procedures and also with the new proposed Nominal Ledger system and Preparation of Financial Information area. Software needed to be adequate for the processing of the payroll system, segregation of duties for issuing corresponding cheques, a controlled system of engagement of new personnel, and procedural controls within the system were included.

The Authorization levels received straight-forward indications for further improvement: a list of steps to be followed prior to any check been signed were laid out to ensure that (1993, p. 14) "a) payment requests are adequately supported; b) suppliers' invoices have been checked for arithmetic accuracy; c) suppliers' invoices are supported by quotations received; d) goods received conform to what was ordered or requisitioned; e) authorization signatures are valid; and f) authorised signatories have approved the transactions in accordance with laid down authorization limits". Also, and as a separate exercise, Coopers recommended (1993, p. 14) "that the authorization limits should be reviewed and the record of officials authorised to approve transactions should be updated".

..*

Section B had important strategical implications for the approach taken by UEM on working standards adopted. In other words, either UEM would embark on a globally recognised working path or it would remain confined

to its own outdated pattern.

A *Nominal Ledger* double entry system was recommended to cater for all transactions of the institution and to form the basis for financial accounting, budgetary control and management information.

The change from a one entry to a double entry accounting system was fundamental for the other recommendations.

A long chapter covered the *Preparation of Financial Information* and dealt with the preparation of accounting information, chart of accounts, form and layout of annual accounts, financial information and management analysis, budgets and cashflow, reports to government and donors and consolidation of accounting information (1993, pp. 17-21).

Categories of accounting requirements were identified and notes on the form and Layout of Annual accounts including Balance Sheet, Statements of changes in Funds balances and Statement of Current Funds, Revenues and Expenditures were included in the report.

In the notes for *Financial Information and Analysis* there is a striking section touching at the heart of the whole operation (1993, p. 19):

"there is no system of central reporting for the University as a whole and thus, it is not possible to determine the overall funding requirements, based on actual results for the University.

Reports to Government and Donors area received from Coopers an opinion that (1993, p. 20): "The UEM currently prepares certain information for reporting to its main funding sources. However, the production of this information is time consuming due to the significant dependence on manual

processing ... In developing the future financial reporting requirements of the University, it will be essential to consider the requirements of Government and other donors and to ensure that one system can meet all requirements".

This section concluded with two notes on the issue of *Consolidation of Accounting Information* where Coopers pointed out again how critical it was to have an accounting system allowing consolidated accounting information to produce information essential for consequent management decisions.

..*

Section C covered areas that UEM should also look at regarding the scope of the systems analysed - they were like "appliances" and "utensils" necessary to implement the options adopted in Section B to obtain the minimal improvements listed in Section A.

Staff capability for work in the finance and accounting area was certainly a key instrument. Clearly, improvement of personnel competence was opened up (1993, p. 22): "As a result of poor remuneration and inadequate experience, staff are generally de-motivated. These factors can contribute significantly towards poor performance and lack of commitment in improving the operating and control environment. In the context of Mozambique generally, the accounting capability of the UEM is not significantly different to that of many other organisations".

The improvement of staff's capability through various training approaches was emphasized by Coopers targeting not only the middle staff in operation but also the senior management staff. Because of the key role

attributed to the human resources of any institution by the thesis author, Coopers arguments are fully quoted:

- For "routine training of operations staff" (1993, p. 24):

"The University needs to implement adequate systems of internal control. Intensive training is therefore required. A system of training should be introduced where a few key staff are initially trained. Once these staff have acquired the relevant skills, they should in turn train other selected staff. This process should be repeated until all the staff are suitably trained".

- For "awareness training for senior management" (1993, p. 24):

"To develop the skills necessary for good management, policy and decision making staff at management level should attend courses in the following areas: a) book-keeping and finance; b) computer awareness; and c) awareness of management issues and responsibilities.

The purpose of training senior management staff throughout the University is to provide them with the basis by which rational and informed decisions can be made, and to create an awareness of the changes that need to take place".

The importance of an "Internal Audit" function at UEM was clearly pointed out by Coopers (1993, p. 27): "organisations such as UEM normally maintain an internal audit capability. The primary function of internal audit is to provide a mechanism by which adherence to internal control procedures can be tested and measured, providing a valuable policing function".

The section for *Purchasing and Creditors control* contains operational and simple procedures to be implemented to ensure that suppliers invoices were checked and that a creditors secure control would not put UEM facing unexpected liabilities.

Comments and opinions for further implementation on the *Computerisation* subject noted the valuable input brought by a study entitled "Eduardo Mondlane University - Information Policy and Development" and produced in May 1992 under a World Bank funded project for the national education area and where UEM was also participating: it was proposed to establish a high level computer steering committee to be responsible for UEM's overall policy making and control of information systems - the systems to be developed would cover the areas of Financial Information, Academic Registration, Personnel Information and Contract and Project Management. Taking advantage of this study as a starting platform, Coopers recommended that the university go straight for building information systems policies and strategies, covering immediately the Financial Information topic and later others such as the Academic Registration, the Personnel Information and the Contract and Project Management, as stated in the WBank study.

The section covering the issues of *Centralisation and Autonomy* provided important insights to UEM: precise concepts of "Autonomy" and "Centralisation" were displayed with examples applied both to Faculties and Central Structure and Coopers finally recommended UEM (p. 32) to "defer from making any strategic decisions until (...) certain basic functions are operating effectively, at which time a more focused position can be established".

Coopers position was clearly based on an apprehension about overall functioning, where there were (p. 31) "a) (...) overall weaknesses in the accounting systems and lack of control of assets, revenues and expenditures; b) perceived lack of proper accounting capability by a number of accounting and other administrative staff; c) a lack of automated information processing; and d) inadequate management

information systems to monitor the University's performance".

Coopers concepts of "centralisation" and "autonomy" are important:

- (p. 31) "Autonomy as it relates to finance refers to the position whereby all information processing and decisions would take place at a devolved level, for example Faculty or Department and would include: a) accounting and controlling of all transactions as they relate to staff salaries, bursaries, tuition fees, investment in capital expenditure, running costs and other matters; and b) preparing financial accounts, monitoring, controlling and interacting with Government departments and donors".
- (p. 31) "Centralisation" is "where a) key decisions and controls, are exercised at a central level; b) information prepared, or decisions taken at this strategic level are passed downwards to faculties, for example for implementation or verification".

Further Coopers mentioned (1993, p. 32) that "striking the correct balance is essential to enable the Finance, Accounting and Control functions to operate effectively".

The section on *Projects* which came at the end, benefiting from previous recommendations, noted (1993, p. 42) that "project accounts may be kept separate from the main UEM accounts if the donors so wish. (...) Project income and expenditure should not be mixed with faculty income and expenditure".

5.4

The move from "bad practices" to "good practices" - highs' and lows'

Coopers' findings and recommendations occurred at a moment where nobody

inside the institution could have a complete understanding of the changes that were to take place inside the institution, coming from the economic-political-social environment framing UEM:

- The leadership team of the institution (The Rector and the two Vice-Rectors) dealt with policy and strategy and ran out of time to deepen the full scale of implications concerning the degree of upgrading and reform needed in the administrative and accounting apparatus of the University;
- The Deans of Faculties and Centre Directors were more concerned with the immediate results of their activities and looked for administrative support systems to be "good enough" for their intentions and purposes;
- The academic staff in general had no overall appreciation of the importance of a good and credible administration. Each had a story of incompetence, mishandling or exaggerated bureaucracy to refer to, linked to the general desire to upgrade academic degree and career.
- The administrative staff continued to perform their tasks in the semi-cool waters of routine and indifference.

Coopers made a preliminary presentation of its findings in the UEM 2nd Annual Consultative Meeting where its Representative in Mozambique presented a firm and concise statement of findings and ways to move forward to overcome the deficiencies. This presentation, while showing the situation in a stark fashion was also seen by the attendants to the meeting (international donors, members of government, members of the University community, foreign and national representatives of the private business community, representatives of national NGOs) as a firm intention of the University not to hide its weaknesses but to acknowledge them and

work fiercely for their elimination.

In December 1992 GEP and the Planning and Economy Directorate merged to become a Finance Directorate (as in table 2.6 of chapter 2). The former GEP Director was appointed as Director of Finance while the former Director for Planning and Economy was appointed as Deputy Director of Finance. The new sector had approximately 20 staff members with some years of work experience and educational qualifications not above 11 school years. The only ones with higher education qualifications were the Director and the Deputy Director.

Having a sense of the complexity of the situation as well as the time scales required to change systems, UEM's Director of Finance decided to act based on the assumption that (quote coming from a letter addressed to UEM's Rector in April 1995) "as UEM has to embark on a extensive process of change of practices and working methods in the Finance and Accounting areas, it is beneficial to take advantage of the Coopers report that should be seen as a road log with all the information on the routes and shortcuts to face. New practices require a positive approach by the organization, followed by patient work with all the operators of the system to change bad practices and to introduce new and healthy working practices. Finally, all administrative support implicated in the steps to be followed are to be looked over as well as the conditions that frame the functioning of the system. Changes to be introduced in the system, should be gradually but continuously pursued and the degree of success and implementation measured in yearly independent audits to the University accounts."

The above path was seen as circumventing the "centralisation versus autonomy" war and also to introduce in the system the "best practices" thought as key to it.

It is important in this respect to note that this approach was based on the lessons learned through the use of the "small" and "closed" system invented at GEP for the accounting of SAREC research funds (See chapter 4). This experiment later turned out to be a useful information tool for the parties involved.

All the decisions were taken by the Director of Finance based on profound and sincere reasoning that all changes should be rooted "inside" the system and not based on outside stimulus and actors, namely people working on a secondment basis and who would be at the institution for a very short period of time. In other words, it was thought that the changes should be conceived as in a typical development process moving the institution from its working framework and frozen practices from the 1960's, to be ready to work in the new century. This would affect all administrative and financial systems and administration and financial processes would also have to take into account the people affected by them. Also and equally important, it was quite clear in the Director of Finance's perspective that the University should not be run as a business-for-profit but as a centre of teaching-research-service for the nation and that while all expenses should be covered by the existing revenues, the decisions taken by the institution should always bear in mind that triangular character.

During the period March to August 1993 work accelerated on several fronts, as follows:

- It was agreed with Coopers, that a 5 years time span was needed to implement all the desired changes and routines, which would be annually assessed through Agreed upon Procedures audits to all UEM accounts.

Coopers & Lybrand was requested to prepare a proposal for an

incremental approach for a number of years of work to gradually develop the efficiency of the internal control systems step by step. UEM and Coopers both sensed that it would not be possible to have a clear and straight-forward "audit" of accounts: the accounting system was made up of different non-integrated pieces of accounting controls, where the objectives and goals of every type of control were fragmented and dispersed.

- It was also agreed to have additional Agreed upon Procedures for fund audits donors funds, such as the SIDA and SAREC funds.
- Under Coopers recommendations UEM acquired an accounting software named "Chameleon", operating on a Unix platform, installed on the Finance Directorate computers.
- 3 computer operators and one "Computer Partner" were recruited to support the Finance Directorate in the use of the "Chameleon" software (their remunerations comparable to the other regular remunerations being practised at the institution).
- Links were established with all banks in Maputo, instructing them on proper procedures and coordination with the UEM's Finance Directorate in case of being contacted for opening new bank accounts.
- Monthly bank accounts reconciliations were introduced in the accounts under the Finance Directorate's control.
- Coordination meetings were set up either inside or outside the sector:
 - * Two meetings per month were with the Personnel Directorate, to exchange information;
 - * Two staff meetings per month were between the senior staff at the Finance Directorate, for better internal coordination.
- Articulation for day-to-day affairs was also established with the

personnel recruited under the "Capacity Building Project", funded by The World Bank, working on "Procurement" issues.

- Operational inter-sectoral procedures inside the Finance Directorate were standardised
- "Instructions" were issued to be part of a future Financial & Accounting Handbook covering:
 - * operational procedures, for routine operations, primarily targeting the Finance Directorate sectors but also disseminating them alongside all the accounting sectors of the university.
 - * for proper accounting of "Revenue Generating Activities" double-entry accounting system was established (based on existing national prescriptions for the for-profit sector), focusing on sectors with sizable resources (the Computer Centre, the Production Unit at the Faculty of Engineering, the Printing Workshop of the University).
- Fluxes of designated operations were standardised to have them always passing through the University Treasury:
 - * For the funds for bursaries payments.
 - * For additional funds, coming from foreign donors aiming to supplement the Government allocations for recurrent expenditures.
 - * For all disbursements to be made in national currency.
- An almost complete data base for all research projects in the institution, whatever their funding agency, as well as for academic staff studying abroad, was organised.
- An almost complete file with specimens of signatures of all "authorized" signatories for any "projects" inside the institution was also organised.
- The University budget proposal for 1994 was prepared following a

methodology prepared by the Finance Directorate and a computer matrix was also drawn up at making use of the scattered existing computerised resources around the institution.

The first successful story happened coming straight from the "Chameleon" use:

- The name of the software was appropriate and easily memorizable: a living life form, adjustable to all environment colours, most of the time not noticeable but of high importance because of eating "mosquitos" and other disturbing flying insects - the animal is not detectable when around but its absence is revealed by the number of disturbing mosquito bites!
- The software was installed in three ordinary PCs and the bank accounts' control tool of the software was intended to be utilised for the control of the 9 bank accounts operated by the Finance Directorate - the salaries account was the one first selected for that purpose because it had not been reconciled and controlled for quite a long time.
- This account was credited with the funds received from the Ministry of Finance for such purpose and would be debited by all salaries cheques issued by the University's Treasury. As this account was only used for "Salaries" it had not been controlled for quite a time - one reason why controls had not been made was because the University had always had surpluses between the funds received and the salaries paid, the difference being positive for UEM.
- The preparation of the documents to be inserted in the control tool of the software and coming from approximately 1,100 cheques issued monthly, was processed by the 3 computer operators under the Computer Partner supervision and following the indications of the

University's Treasury personnel.

- When the "Chameleon" results for the month of January 1993 salaries bank account reconciliation were visible, it was a big shock. A high number of discrepancies between the University records and the bank statements were shown - the discrepancies amounted to an incredibly high amount of funds against the University! A "call of attention" was immediately directed to the bank authorities: they were surprised with this warning, because they had not been used to this type of questioning.

The work for the months of February and March 1993 was also conclusive of the bank errors against the University and always for a sizeable and noticeable amount of money. New "calls of attention" were obviously sent to the bank authorities!

The outcomes of the use of "Chameleon" encouraged all staff in the Finance Department - everybody was very aware of the time-consuming needed effort to reconcile all banking operations for approximately 1,100 salaries cheques per month, which were done on a manual basis.

Based on the spectacular result of the salaries bank account it was decided by the Director of Finance to go further immediately and incorporate in the same bank control the other 8 bank accounts dealing with the funds for other expenses with the national budget and also for the international projects.

The "Chameleon" results also boosted the understanding, by the Finance Directorate staff, of the changes needed and the work to be done relating to segregation of functions, levels of approval for contracts, commitments and expenses to be incurred, validation of awards, contracts and responsibilities, distribution of functions and obligations and

responsibilities.

..*

The Director and the Deputy Director of Finance both reported to the Vice-Rector for Administration and Resources. Every week (on Thursdays) a coordination meeting would take place between the above Director and the Vice-Rector where information about the work being implemented in the sector was transmitted and cleared together with acknowledgement of instructions and exchange of opinions.

The division of work between the two senior people at the Finance Directorate had the Deputy Director looking at the national currency affairs while the Director would look at the foreign currency matters. Weekly and before the meeting with the respective Vice-Rector the two finance officials would coordinate their views and actions and plans for next week's work. Continuous phone and fax communications between both officials and a twice a day pouch (they were working in different locations in town) exchanging documents and instructions and other relevant written material kept them focused on their jobs.

The pace of work in the Finance area during the period October 1992 to November 1993 was strenuous and intense - continuous long working hours for weeks and weeks, weekends devoted to keep things running, immediate contacts with the Vice-Rector at any day or hour to inform him on the findings and opinions in view of the work being done ⁽⁷⁸⁾.

⁷⁸

The first findings from the "Chameleon" work when the salaries bank reconciliations came to light were reported in his home, just before dinner time.

In the third quarter of 1993 the Director of Finance resigned from her functions for personal reasons. With her resignation the existing innovative trend at the Finance Directorate was devitalised and the work pattern of the sector had to adjust to the existing resources.

5.5

Conclusions

A lesson never to be forgotten is the intricacy and complicated organisation of an University. It is a hierarchical structure where the "elite" is personified by the academic staff while the "commoners" are the administrative and technical staff no matter what is the degree of their qualifications and the level of their professional experience. It is also an organisation where the primary products (teaching/research/other services) are seen without immediate connection to their administrative and financial support systems. Due to the ambiguity of the relations between and within the "top hierarchy" and the "products" of the institution, issues of "centralisation" and "decentralisation" (called "autonomy" in other parts of this chapter) are always flagged for combat of prestige and influence. If the nature of the institution is not clearly understood as a pre-requisite for the establishment of reporting procedures and lines of communication, confusion can soon arise and the quality of transmission of any data or information will be hampered.

My personal reflection is that the understanding of the scope of changes and procedures to change was not understood by the leadership of the University in a "developmental" pattern. The people involved genuinely thought that everything would go well if qualified people were hired, properly paid and placed in the Central Structure of the University. I

argue that this was a one-dimensional approach to the matter and did not cater for the firm establishment of professional routines in the system. Implementation of systems require a comprehension of the nature of the system and the goals to be achieved with its implementation. It also requires permanent insertion in the daily practices and subsequent continuous monitoring and supervision practices.

It must also be concluded that it was not a sustainable approach to base the changes mainly on the dynamism of one person (the Director of Finance) instead of having a broader basis of support - and with the leadership of the institution ⁽⁷⁹⁾ supporting the changes in place.

This chapter concludes by arguing for the importance of looking to the "accountability" concept and its consequences derived from an institutional rather than fragmented approach. Saint (1992, p. 39), in line with his ideas on how to stabilise and revitalise universities in Africa mentioned that "if universities are to be accorded greater autonomy in their relations with government and donors, they will have to ensure that they remain fully accountable for any delegation of responsibility that they receive. There are various ways in which the universities' accountability might be enhanced. These including:

- A client-responsive financing structure, including cost-recovery, formula financing by government, and private participation (...).
- The preparation of a yearly work plan, including concrete objectives and activities, which might serve as the basis for coordinated funding discussions with government and donors.
- The preparation of an annual report which lists accomplishments

⁷⁹ Only in 1998 did UEM regain, once more, the momentum to move towards the improvement of its Administrative and Financial Systems!

under the prior year's work plan, and also identifies problems for future attention.

- A broadening of the university council to include representation from business and civic sectors to enhance the university's articulation with the society that supports it.
- The commissioning of an annual financial audit by a reputable independent auditing firm".

Saint followed his presentation with strong focus on higher education policy change.

We in this thesis, go further by focusing on the need to link policy to useful inputs coming from a well organised, integrated and responsive financial and accounting systems within any higher education institution. Financial accountability is indispensable and should be in partnership with credible and thoughtful evaluations of the teaching-research-service activities of the organisation.

6.

Thesis conclusions

This final chapter presents the general conclusions of the thesis. It aims to provide reflections that will serve to support not only the institution analysed but to other higher education institutions on the same development path.

The chapter opens with a strong argument that universities/higher educational institutions need to see their "administrations" as an *integral* part of their organisations and as its operational wing supporting the teaching, research and service activities of academic staff.

It is a surprise and a major gap that, in the African context, there are so few published works on issues of finance and accounting for higher education institutions.

Then, the period 1975-1993 is summarised as Mozambique's economy changed from a colonial to a centrally planned model and then towards a liberal market oriented model. UEM's overall performance is analyzed. The higher education system in Mozambique during this period is presented, with a summary of the developmental paths followed by UEM within the evolving system.

Section 6.4 summarises issues from the new planning process at UEM starting in 1990, its intentions and achievements, as perceived by the public. The strategic planning process was impressive but had some weaknesses.

The administrative and operational management systems were inherently harder to implement. The next section summarizes the need for improvement required by UEM's "administration", and why the revealed weaknesses did not show in their entirety. Comments on general national capabilities are presented.

The chapter summarises the lessons learned from well defined routines (donor funds for research) and in the fields of accounting and reporting to users and donors.

The chapter questions why UEM financial and accounting systems were maintained in a poor "state of the art" state and, finally, presents recommendations affecting the strategic planning process, the functioning of the financial and accounting systems, and personnel capability to operate and process routines of "administration" of the institution.

6.1

Why a University has to have an "administration"

This thesis relies not only on a narrative of a real process, as described by one of its actors, but also reflects the views of someone who argues that the administrative capacity of any organisation is a key factor for its (good) performance - in this particular case the capabilities of financial and accounting systems.

Having lived through the "real story", as an active participant during approximately 20 years, it is hard to analyse events and their consequences with "cool blood" and a "cool head". It is important, though difficult, to draw conclusions so that errors are not repeated and lessons learned from the past, adapted for the present and improved in

the future.

Being on the "administrative" side of a higher education institution, an environment dominated by academic staff views and influences, does not ease the trail for conclusions and suggestions.

Lockwood's experience, based on well developed higher education environments, led him to say (1993, p. 1) that "in a typical British university, the Administration consumes approximately 5% of its resources (...), is probably in effective control of a further 15% of those resources and exercises significant influence on the remaining 80%". While the quoted phrase covers a British setup, the thesis author argues that what is retained from it is the disastrous consequences for the institution's overall performance if its "administration" is not clearly reliable and efficient...

Lockwood makes (1993, p. 3) some major points that underline the "low profile" and diversity of tasks that affect any university "administration", starting by saying that "the Administration is not a production unit as far as the basic purposes of the university are concerned, and its members should recognise that the nature of production in a university required the academic faculty to possess a high degree of professional independence in their primary production functions" (in his words, "teaching, research and other activities"). Then he continues (1993, p. 3) "Although it is not a production unit, the Administration undertakes functions which are essential for production".

Lockwood also describes (1993, pp. 6-7) the "administration" as follows: "The modes of operation of the Administration vary according to the

nature of the task and the degree of responsibility of the Administration for that task. (...) In the main block of its work the Administration performs in each task a fairly standard set of duties, e.g. providing advice and information, administering the decision taking (producing policy and procedural papers, agenda, minutes, communicating and recording the decision taking). In general that set of duties applies to tasks such as planning, budgeting, student records, personnel, and admissions selection. In other tasks the Administration performs that set of duties plus decision taking and the implementation of these decisions through management of the activity, e.g. ceremonials, archives, routine maintenance of buildings, audit, businesses. In other tasks the Administration does not perform all of the basic set of service duties listed above, e.g. in curricular development, teaching methods, research administration".

However, concerning the institutional system and the way "administration" is located in it, Lockwood notes that a responsive and responsible "administration" has unity within itself arguing (1993, pp. 7-9) that "the need for unity of the Administration is related to flexibility. Part that stems from the need to enhance the ability to train and deploy individual administrative faculty, to draw upon the collective skills and strengths of the separate parts, and to plan the career development of staff in accordance with common practices and policies of training, transferability, appraisal and promotion".

Little supporting literature was found for the present thesis written by higher education "administrators". More is written about general management higher education issues by academic staff.

Under the circumstances, and in an attempt to frame my own empirical knowledge in an analytical framework, I have opted to appraise my own (quite lonely) practical field experiences, trying to extract the soundest possible conclusions.

6.2

Environmental decisive factors and UEM's performance

While I have the view that, at Independence, the ruling party decided to continue to have a "university" to train the necessary labour force for the country's development, Fry and Utui (1999, p. 3) have the opinion that the first Rector, Fernando Ganhão, exercised his authority to thwart "moves to close the University - it was regarded by some as an unnecessary expense - by taking measures to adapt it to the daunting task of rapidly training cadres to implement the socialist program". In their words (1999, p. 3) "to justify its existence, the University adopted a utilitarian stance, training human resources for the pressing needs of the national economy".

Fernando Ganhão's period (1975-85) is seen by the thesis author as a continual argument to confirm the importance of having such an institution in the country. As said before, hopes were high, even naïve, for the institution's outcomes. Today, with hindsight, it can be seen that more priority should have been given to build institutional experience of curriculum development, internal organisation, and working methods in the western world to construct a more adaptable and competent institution. But, it is irrefutable that the kudos and support gained by UEM in the local and international scene, at the time, came mainly from Ganhão's leadership where he tried his utmost to combine political influence with available competencies in the institution and in the

country. This was never an easy job and sometimes harsh decisions were taken.

Rui Baltazar's leadership (1985-90) was exercised in an environment of tension, due to the demise of the socialist block and the effects of the internal war. This affected the Government resources allocated to the University as well as the pace of activities outside Maputo. These were times where the bridge was crossed from dream to crude reality of life. The Rector was never influenced by any "political" decision and always had a profile of rigour, politeness and firmness under the rule of existing law and regulation.

The Narciso Matos period (1990-95) was the period of rupture - with the holy cows and dreams, when the institution adapted to a foreseen (in the region) competitive and globalised world. His skills for reaching consensus and avoiding frictions (a kind of "diplomat" style) - despite driving a process of organisational rupture and institutional reshape - helped him to gain individual international stature and brought international acknowledgement to the institution he was leading.

In 1989, again by Fry and Utui words (1999, p. 4), "it was clear that the University needed to adapt to the changing economic and political scenario, seeking funds and support from the international donor community". The (Present & Perspectives) strategic document was drawn up, according to Fry & Utui, to address, 1) the difficulty of training and maintaining qualified Mozambican staff and the need to reduce dependency on expatriates, 2) the small number of student admissions and a marked regional imbalance between students from the south and the centre/north, 3) a high student dropout rate and low rate of graduation,

4) a paucity of research and outreach activities, and 5) an inefficient, cumbersome and over-centralized administration (⁸⁰).

The environment within which UEM's activities were unfolding was not a simple one. The vestiges of the colonial legacy were strong and the influences of struggle to find an appropriate structure and operation great pressure were visible. In an interesting document, produced by Mozambican consultants, paid by the World Bank, the colonial heritage influences are summarised under two streams: the "institutional" and the "organizational" (World Bank, 1996) (⁸¹).

On the institutional, it is noted on the "negative" side that:

- there was no tradition of transparency and accountability toward the population;
- citizens were not used to voicing their concerns to improve or change the level and standards of services provided by public authorities. Instead elite citizens, with financial capabilities, were used to getting better services by paying for them.
- "to control" was the main restraint on initiatives outside government.

Correspondingly, organisations:

- were structured in a hierarchical and top-down model;
- worked without concern for devolution of authority or team work or internal transparency and accountability.

⁸⁰ Interestingly, Fry & Utui do not provide the reader with any examples of the awkward administration mentioned in their writing.

⁸¹ "Institutions" are defined as the set of formal and non-formal rules affecting human behaviour and relevant to human relationships. "Organisations" are defined as the set of people who target defined objectives by using several systems - they include political or economic or social or educational or other entities.

The same study (World Bank, 1996) goes on to look at the period 1975-1986 (from Independence until the implementation of the Structural Adjustment Program) noting that during this period the main traits were the following, the positive ones coming last:

- in the area of the economy some institutions were discredited and/or abolished e.g. the application of interest rates in the banking system, material incentives were replaced by moral incentives;
- the prevalence of "political" criteria to judge peoples' performance combined with a cross-society social equalitarianism, led to disdain for acquiring professional skills;
- obedience to "commanding words" used to motivate people brought in some lack of criticism and a decay in public service standards;
- for several years after the proclamation of the national independence there was an extraordinary sense of dedication and enthusiasm motivating people to work on several and varied areas - motivation and dedication were generalised and corruption was almost non existent;
- the authorities of a new and independent country tried to establish a new system of accountability ("prestação de contas") in popular or well attended meetings marking a difference with the colonial authorities;
- health and education services were quickly expanded all over the country (primary school attendance increased extraordinarily while adult education had high citizen attendance, and vaccination campaigns were highly successful).

Finally, in the period 1987 to 1996 the study (World Bank, 1996) suggested that:

- the public sector kept its "centralized" and "controlling" patterns (with the internal war given as one main cause);
- from 1994 until the time of the study, the consequences of the introduction of a non-partisan political regime, combined with the emergence of national non governmental organizations proved beneficial;
- there was still a clear shortage of a qualified labour force for public or private institutions;
- corruption and bureaucracy became common in all places and services.

The above characterization sufficiently reflects the environmental situation and thus facilitates our analysis. Eduardo Mondlane University had, despite all its shortages, a clear balance of trained academic staff while administrative staff were notoriously under educated. All the elements in this environmental analysis, together with a lack of overall university management experience, led to an agglomeration of models, objectives and modes of operation, turning the organisation into a multiple "box" model, which was reviewed by The Commonwealth Secretariat (see chapter 2) as needing to be streamlined to make the organisation more manageable and accountable.

6.3

Characterising the changing university

It is important for this thesis to characterize the changing University. Few, if any, people at the University were aware that during the period 1975 to 1993 UEM had a development path as defined by Julius Nyerere (chapter 3). No-one ever tried to characterise the university in comparison to other universities in developing countries. But UEM's

internal debates did mirror others. For example, the July activities (discussed in chapter 3) were seen as an obvious extension of the role of the new institution. They were never anchored in a set of intelligible, analysed concepts.

I argue that the main dilemma, however, was that the University "development" path was initially drawn up in a centrally planned environment. When this environment changed, in 1986, the institution's trail was not then redefined accordingly either to a liberal or a developmentalist framework (as referred to in Chapter 3). The strategic planning experience began only 4 years later, and P&P did not contest or rephrase the "Mission Statement" comprised in the 1 May 1976 declaration of President Samora Machel.

In addition, few, if any, people at UEM noticed the changes within the higher education system that were the basis of UEM activities (as in chapter 3):

- (i) From 1975 to 1984 the higher education system was a "university-based system" where UEM was alone in the landscape;
- (ii) In 1985, with the appearance of the Higher Pedagogical Institute, the Higher Institute for International Relations, the Naval School of Mozambique, the system moved to be a "differentiated public higher education system";
- (iii) Finally, in 1995, with the inclusion of private funded higher education institutes, the system turned into a "differentiated public plus private" one.

UEM took these changes into account, indeed was a major actor in making the changes, but few were aware of the implications - including the need

for more flexible, responsive and integrated administration and academic management systems; and to be clear whether the university was to be a developmental or a neo-liberal institution.

6.4

The new planning mode

But change did begin in 1990!

UEM's planning process, until the appearance of P&P was largely done by interpreting the general advice and overall spirit expressed in the 1 May 1976 statement by Samora Machel combined with the "translations" made towards central planning by the National Planning Commission (as described in Chapter 2). P&P, by contrast, was conceptualized and shaped (using a restricted "participatory process" of the university's community, as it would be perceived nowadays) inside the institution. It confronted the existing dogma to "do the maximum of work with the minimum of financial resources". P&P clearly asked for more resources linking its request to goals that were defined in broader terms. But P&P was very much produced with the belief that the plan would succeed through the leadership of the institution. It was less rooted in a serious management effort, with the introduction and maintenance of routines and procedures. P&P relied heavily on financial inputs to be allocated by Government and other donors - when the financial inputs did not appear on the expected scale, UEM did not have the creativity to take alternative routes to achieve the objectives desired.

Despite being activated inside the institution, P&P was however inspired through 'dialogue with donors'. It did not happen only from the clarity of mind of members of the institution. This was a weak point for P&P

because it was not fully supported by the critical mass needed within the organisation for its sustainability.

In Fry and Utui's words (1999, p. 11), "in 1990 the Ministry of Education organized a major meeting to assess development plans for education. (...) During this meeting, donor agency representatives from Sweden, Netherlands and Canada, which were already strong supports of basic education in Mozambique, suggested to the Rector that they would be willing to contribute more effectively to the University if they could receive a plan which would give them a view of the basic aims of the University and how other donors were involved. Since the senior management of the University had also felt the need for a coherent plan, the donor's suggestions encouraged the Rector to call in the University's senior academic and administrative staff to diagnose the needs of the University and to devise a five-year development program".

The World Bank document mentioned earlier (World Bank, 1996) mentions clearly that UEM's first strategic plan did not achieve expected results. The document here states that (1996, p. 59) UEM's activity has had little impact on society because:

- the institution graduates few students;
- produces a small amount of research that has little impact on the country's development problems;
- does not provide "services" to the country as a higher education institution (while its staff does that on an individual basis);
- do not have a stand and position on the country's problems.

Fry and Utui (1999, p. 7) referring to the end of Matos rectorial period, say "in spite of (...) significant progress, the principal problems

signalled in 1991 persisted. Graduation rates continued to hover around 4 or 5%, 61% of the student body continued to be recruited from the southern provinces, and women continued to account for only 25% of the student body. Staff retention also remained a serious problem, having been compounded by the growth of the Mozambican economy, which had begun to provide lucrative alternatives for highly trained Mozambicans. Although salaries at UEM were higher than the civil service norm, they fell well behind salaries offered by the private sector, the [international] NGOs and International Development Organizations such as the UNDP, UNICEF, USAID and the World Bank. Furthermore, and in spite of the many studies carried out and a few reforms, the management of the University continued almost as inefficient as ever. Problems resulted from the juggling of donor funds to offset the unpredictability of government pay-outs".

The quoted documents on this section do not mention, however, that despite extremely hard living conditions, all staff during the post-independence period until 1993, continued forcefully to do their work allowing the institution to have classes, gradually re-open courses closed at Independence, embark on a rapid academic postgraduation program, build new academic staff housing, students hostels, new labs, classes and supporting services (like the Printing Press and the Book shop). This thesis suggests that all this was done at the cost of not having also the ability to build a proper "administration" and consequent routines and processes.

6.5

The weaknesses of UEM's "administration"

The thesis author suggests that the first two post-independence Rectors had an instinctive comprehension of "administration" matters but did not establish improvement in the existing systems and processes. They just kept it running as it had always been before! The younger Rector, Matos, did not have the same instinct and due to increased pressures on the institution, the efficiency of "administrative" processes, its organisation and inter-links, continued to deteriorate.

In the words of Graça Machel (Machel, interview, 1999), an outspoken insider both participant and observer: "I still think that even today one of the crucial weaknesses of Mozambicans remains in the areas of administration and finances...". The thesis author argues that "administration" is an area where efforts should be put together to strengthen higher education institutions performance. Graça Machel goes further in her assertions, commenting that (Machel, interview, 1999) "in the initial years (...) almost all of us attributed more attention to think, reformulate and organisation and administration and creation of systems where not prioritised in the same level. (...) There was not the same consciousness as today about these issues".

I argue that the triangle of "lack of knowledge" combined with the "exaggeration of self-pride" and also with the "candour" coming from everybody's newness in the jobs, shaped the history of the university's performance in "administration":

- During the period 1975-1985 because of the state control over the economy and because of the importance attributed to the University both in allocation of funds and its use for tasks of national importance (e.g.

the National Census of 1980 where all students, with academic and administrative staff were deployed throughout the country), the administrative "weaknesses" including in financial & accounting systems, were not revealed because that kind of data was not important for the image of the institution.

- The period 1986-1989 was a transition period where national individual souls changed from the old order towards an unknown future. At that time, and due to the firmness of the University's Rector, the administrative "weaknesses" did not exhibit its need for improvement. The University remained most prestigious source for graduates in country, consequently continuing its prominent position in society.

- From 1990 onwards, in what became a post-war environment (the war had produced a remarkably high level of destruction of all types of infra-structure), combined with passage to a liberal economy, the institution had to count more on its own capacity. It had to define "problems" and also "answers to solve those problems" rather than just ask for financial resources for its running. Its capacity would also need be applied to solve the internal problems of the organisation.

Trying to have "capacity" just by hiring people paying them "good" remunerations is not enough - sound routines and procedures together with enthusiasm and motivation and a sense of identity are all part of a package that will finally be translated in new capacities, to last for the medium and long terms. Even the most expensive people have to work hard and enthusiastically to change to happen. This, we argue, is the essence of sustainability.

Graça Machel supports my argument (interview, 1999) mentioning with vitality that "(...) That came because of lack of experience... I always acknowledge, from my experience at the Education sector, that we were not good administrators. We were always better on developing ideas and strategy lines but about organisation and administration we were always weak - despite having done some remarkable things under the existing conditions; an example is to have been able to ensure that in any primary school, even in far places, there were always statistics on the number of male and female students - at the time the "gender" issue was not in the limelight like today (...)".

My argument is that the evidence of P&P's implementation supports Machel's emphasis on the contrast between good and creative ideas and lack of management capacity to make them real. P&P was a paradigm of good concepts plus extraordinary work to produce a plan confirmed by a sound package of objectives to be achieved. But there was no perception of the management and administrative weaknesses that would be decisive for the implementation of the plan.

Our argument on administration and management is as follows: The administrative systems were extremely weak. They were rooted in an administrative style, not very creative and innovative. The interface administration/management was not clearly thought - who was driving the change process: top? or top plus middle? or top, middle and bottom? Perhaps with hindsight there was an attempt at top plus middle staff processes running during the period 1990-1995.

During all the periods the contribution of academic staff who were trained abroad to get postgraduate degrees (Masters and PhD.s) to the

improvement of administration processes was not seen by the thesis author as relevant. While some argue (like in Nuffic, 1995) that the exposure to developed academic environments during the postgraduation period boosts peoples' awareness for new cultural and working patterns, I argue that the so called "academic staff" are just like "students" studying and so not very able to perceive and rationalize the value of those processes and how to adapt and make use of them in their home environment.

Another point to look for is that rarely donor officials who constantly contacted UEM were "administrators" but rather "academic staff" type or used to positions and work responsibilities were they did not experienced to have to set up, develop and constantly evaluate the performance of their administrative and supporting routines. In those circumstances, the question is, what sound and tested advice could they provide to UEM?

6.6.

The lessons from the development of a research system

Lessons to be learned from events requires an approach with attention to:

- time length and their environmental context
- the reasons that supported the decisions taken at the time, and
- the resources available by the actors participating in those events.

To facilitate the comprehension of the next arguments a synopsis of key moments in Eduardo Mondlane University's history, focussed on the thesis theme, is inserted:

Table 6.1

Key moments in UEM's history for this thesis

Phase	Dates	Main events and information
Pre-Independence	1962 - 1968	<ul style="list-style-type: none"> - Establishment of "Estudos Gerais Universitários de Moçambique". - 23 December 1968: the higher education institution is upgraded by the Portuguese Government becoming "Universidade de Lourenço Marques".
I	June.1975 - November.1982	<ul style="list-style-type: none"> - 25 June 1975: Mozambique's Independence. - Fernando Ganhão is appointed as "Rector" of the University. - 2433 students enrolled in 1975. - 1 May 1976: The university is named as "Universidade Eduardo Mondlane" (UEM) and receives a Mission Statement within a "development university" vision. - UEM concentrated all efforts on "teachers training" for secondary and medium level national schools. Meanwhile opens the Faculty of Law and the FACOTRAV and a course for teachers of Marxism-Leninism. Courses in other faculties compress curriculum to shorten its timelenght duration to send graduates to work all over the country. A scholarship fund for mozambican students is set up. A 1 month working period is introduced in curriculum for all courses and also involve academic staff and supporting and administrative staff. - 1978: UEM's First General Assembly (11-13 November) recommending a new governance structure for the institution. Establishment of the first Committee for Scientific Research becoming a Central Committee for Scientific Research and returning to be, again, Committee for Scientific Research. - 1834 students enrolled in 1979. - 1721 students enrolled in 1980. - 1981: Approval of Moçambique's New System of Education - 1982: PPI and the plans for developing the country. - November 1982 - UEM's 2nd General Assembly.
II	December.1982 - December.1989	<ul style="list-style-type: none"> - 1982/1983: UEM's new governance structure and setup of the Permanent Secretariat of the Scientific Council and of GEP ("Gabinete de Estudos e Projectos"). - 1985: Rui Baltazar dos Santos Alves is appointed as "Rector". - 2031 students enrolled in 1985. - End of FACOTRAV activities and in 1986 end of the teachers training courses (opening of the Higher Pedagogical Institute). - December 1988: National Workshop for Research and Development organized by the Secretariat to the Scientific Council. - 1989: Preparation of UEM yearly budget for 1990 with the software and information available at GEP and the Directorate of Planning and Economy.

Phase	Dates	Main events and information
III	January.1989 - December.1993	<ul style="list-style-type: none"> - 2926 students enrolled in 1990. - 1990: Narciso Matos is appointed as "Rector". - 1990/1991: Preparation of UEM yearly budgets for 1991 and 1992 with the software and information available at GEP and the Directorate of Planning and Economy. - January.1991: Workshop for Research Administration organized by GEP with SAREC. - May.1991: UEM's 1st Annual Consultative Meeting with presentation of "Present & Perspectives" ("P&P"). - December.1992: GEP merges with the Directorate of Planning and Economy to create the Finance Directorate. - February.1993: Coopers & Lybrand report on review of UEM accounting systems. - 4036 students enrolled in 1993.

Source: Thesis for M. Phil. degree (Open University) by Célia Diniz

The first three years of Phase I were a strangled period where the institution was just coming out of an independence process with consequences of rapture, change of values, affirmation of a Mozambican identity - it was not a restful period. UEM had to: deal with lack of academic and qualified administrative and supporting staff, recruit and integrate new staff from various parts of the world, continue its teaching activities at an acceptable average standard, start restructuring the curriculum in almost all areas of knowledge making it adequate for a new independent country, build partnerships and linkages with other sister institutions in the world, adapt to the "Mission Statement" attributed to the institution by the victorious Liberation Movement that was leading the country's independence and, finally, was the only higher education in a country in desperate need of well trained national human resources.

Research, during this period where everyday there was need to build things from scratch, was not an activity where it would be easy to get

consensus and have a clear vision of doing it within the institution's scope of interests.

In this period, probably for lack of know-how and supremacy of "politics" over "daily practices" and the obvious dominance of academic staff, there were no attempts to look at the adequacy and the products from the financial and accounting systems, leaving them to follow general national regulations.

The 1st General Assembly, in 1978, highlighted recommendations for research but these came from staff used to research patterns during the period prior to independence and their suggestions concerned the "mechanics" of the process (in which they had experience but which was new for the young Mozambican staff).

Due to the lack of human resources together with the management style in use at the time, UEM governance structures were able to handle the research in a top-down way. The only place at UEM where "research" was properly conducted was the Centre of African Studies with adequate scientific leadership, knowledge of methods and tools, and a sense of use and dissemination of findings achieved. The last four years of this phase covered the period where the national task of "teachers training" dominated and was not easily equated with "research". During this period the "central planning" model prevailed and UEM activities had to conform.

While we can begin to see numerous research inputs in faculties and departments, there was no organized scientific leadership to stimulate "research". Management patterns continued to be top/down. UEM's administration also continued to be assured by dedicated but not

knowledgeable staff and administrative processes were applied just by automatic copying rather than by any deep understanding.

Financial and accounting systems and practices continued to be prescribed by the Ministry of Finances.

Fernando Ganhão's vision of an "university" enabled him to find ways to deal with the forces in action and take advantage of the staff available to install working mechanisms, within UEM's governance structure, to ameliorate the efficiency of the work in critical areas like research.

Phase II covers a period of creation of working tools mainly in the "research" area: the integration of the scientific with financial administration and accounting systems for research was the cradle for the appearance of elementary "research management" and "research administration" functions.

The concept to link research with academic staff postgraduate training (later receiving the label of "capacity building") was key to faculty and department short and medium terms plans. Research areas of interest started to be consistently drawn by faculties thus affecting curriculum development and calling attention to the need for an adequate infrastructure.

A small and simple system to cater for financial information for the use of research funds donated by foreign donors (described in chapter 4), provided researchers and management with timely information. The use of this tool expanded to cover the preparation of the financial component of research proposals submitted by UEM to donor agencies and subsequently to

guide researchers on financial resources available when agreements were finalized. An awareness of the inadequacy of the existing financial accounting systems started to grow in UEM's administrative staff together with the notion of the role that a proper administration can play in a higher education institution.

During this period a "research hierarchy" developed. Characterised by SAREC (Olsson, 1995) as "qualified research" accounting for 12% of SAREC funding, "capacity development" (34%) and "the basis of research" (54%).

During this period the "central planning model" was abandoned and economic measures responding to the framework of a Structural Adjustment Program, starting in 1987, had to be nationally adopted.

Phase III was like a "season of changes" in the University's life. UEM changed its planning mode, embarking on a strategic planning process willing to influence its donors, perceptions rather than waiting for Government's instructions for the yearly budget. Correspondingly UEM embarked on various reforms not only changing its governance structure but also installing some administrative and supporting tools in its organizational chart and affecting day-to-day working patterns.

Research followed the working pattern of the previous phase but the capacity to coordinate "research management" with "research administration" was not enough for the torrent of requests and inputs coming from all sides.

Changes were immense and there was not enough manpower, know how and material resources to accompany it. Examples were, on the academic side:

the need to have a research plan covering all donors contributions; avoiding that varied types of "capacity building" be mixed with "research" interests. There was a need to avoid that academics hunted for training opportunities according to available funding without linking the training opportunities with in-country research capacity building. On the administrative side there was a lost opportunity in not implementing at the time the revisions and adaptations on the financial and accounting systems of the institution.

The enormous pressure on UEM, was far heavier than the 1975 pressure: in 1975 UEM had only to respond to the Frelimo party and to Government; in this period UEM had to provide sensible answers to the national Government, to foreign and national donors and to the public also. Clearly, this was too much for so few people with new structures!

..*

I argue that the successes of Phase II in research came from:

- The instinctive comprehension the UEM's leadership had of the supportive role of administrative processes to the academic main functions.
- Clear lines of communication between UEM's leadership and the staff heading the "research management" and "research administration" functions influencing the top/down and the parallel flows of information, thus avoiding duplications and confusion.
- Coordinated actions between the Secretariat of the Scientific Council and GEP. The action plans were not sophisticated but were sensible and clear working tools shaped as a sequence of actions "to do" including responsibilities and periods. The system turned into a

rolling and adaptable instrument for the future work.

- Capacity to create simple and unsophisticated check points and information to support the work in progress.
- Production of timely information for analysis and for support of future actions and decisions.
- Investment in time to study the subjects to have a sound knowledge basis over which to build the working apparatus.
- A perception that the work to be done was a sequence of steps, each one of them requiring adequate structure to jump to the higher one.

Research implied not only the activity of "academic staff" but also the organization of relevant supporting services (laboratories, libraries as well as procurement and maintenance services). Some may argue that the usefulness of the management and administration tools used in the process were confined to a limited area of work. I argue that this is a "non scientific" observation and that "research" is a good sample area to observe the efficiency and effectiveness of individuals and management and administration systems performance for further use in the teaching and services areas of any higher education institution.

6.7

UEM's suitable financial and accounting systems

Turning finally to financial management and accounting systems in universities, my argument is that insufficient attention is paid to their study in general in Africa and also, of course, in UEM.

What is needed for an organisation such as a "university" in a country like Mozambique to be meaningful over time? What is required, in particular, for such an organisation to be able to interpret

environmental signals over time and be prepared to adapt itself to the future? Those "questions" will always be present on the management agenda of any higher education institution.

Higher education institutions in Africa are subject to immense pressures - internal and external: from their own governments, from their national constituencies, from civil society and citizens of that country, from foreign donors and, finally, from the process of pairing with sister institutions in other parts of the world. My argument is that the best way to develop existing strengths to face multiple challenges is to integrate improvement of academic with administrative capacity. This simple argument is easier to affirm than practice. UEM's recent history illustrates the issues well.

Whatever the historical and cultural premises shaping society, the role of "universities" and "higher education institutions" is to avoid being complacent and to struggle with harmonious development of their capacity - with academic as well as on the administrative organisational change.

On reflection, what now amazes the author is how UEM evolved without paying any significant attention to the structure and outputs of its financial and accounting systems. It could be argued that there were so many things to oversee and an immense number of "holes" to be filled, that attention was not paid to the tools that were functioning with minimal problems. At least they ensured that salaries were paid on time and that current obligations were fulfilled. Overall it is also debatable in general why so little importance was attributed to infrastructural systems.

Various rationales could be attributed to this state of affairs:

1) National Government's attention was directed to the macro level and as the institution was accounting for the funds allocated through the national treasury (chapter 2) no changes or suggestions were needed in the "old" system;

2) Foreign donors would have three different approaches:

- a) the Swedish institutions as well as The Ford Foundation, at the time, valued the financial tools put in place at the "centre" and "periphery" of the institution that catered for their financial contributions;
- b) the World Bank paid attention to policy changes connecting them directly to the leadership of the institution; and
- c) smaller donors favoured the installation of sectorial capabilities to account for the implementation of their own funded activities.

While the "perfect" approach never exists I argue that the final solution should, ideally, have elements of all the above but in a co-ordinated operation mode. That was the attempt that was made in the early 1990s (see chapters 4 and 5).

Based on chapter 5, the tenuous notion of what was conceived as a University "administration" at UEM was dominated by endless discussions and debates as to the consequences of "centralized" and "decentralized" modes of operation - a "centralized" structure seen as synonymous with an "administrative" mode of operation and a "decentralized" one seen as "administratively" lighter. Financial management and accounting issues were analysed in a similar way.

In the same chapter, the insufficiencies of the financial and accounting systems in place were portrayed as they affected the production of relevant management data for teaching, research and services pillars of university activities.

The data existing at the time, while insufficient, was produced under the pressure of "real" needs (e.g. the research financial tool described in chapters 2 and 4 or the budgeting techniques described in chapter 2), leaving the notion that some dynamism was existing at the "administration", but requiring the necessary leverage to become appropriate and fully useful to the institution as suggested in chapter 5.

Financial and accounting systems need to produce information that will facilitate the continuous or intermittent assessment of academic activities. We can summarise what we mean by re-capturing the recommendations stated in chapter 5 (CVCP, 1993, p. iv): "(...) The main objectives of the reports and financial statements are (...):

- (a) a true and fair view of the financial position of the institution at the balance sheet date and of the income and expenditure and cash flows for the period then ended;
- (b) the income from all sources within the period of the accounts;
- (c) the expenditure on all activities within the period of the accounts;
- (d) the assets and liabilities of the institution, classified in suitable form;
- (e) any known or probable circumstances which might significantly affect the financial position of the institution; and
- (f) how the institution is performing financially, including the

adequacy of the working capital, its practical solvency (or insolvency), and its investment performance".

6.8

Lessons learned

This section draws together a number of conclusions and recommendations:

The human resources base of UEM's administration was, in 1990, clearly weak and inadequate. This situation has evolved so that present efforts have a better knowledge basis that, although more is required, is a significant advance. Table 6.2 (in next page) presents a comparison of the educational basis of the staff at UEM's administration. The advance is self-explanatory.

The issue of financial and accounting systems is bound up with its role in supporting the previously fragmented academic/administrative activities, and differently funded activities. This thesis has argued with evidence, the need to pay attention to the production of financial reports on the use of funds and other resources allocated by external donors. Those reports, combined with the corresponding narrative reports, have to be done within an integrated and proper accounting scheme of the recipient institution, fulfilling donors' requirements for such data. Really, it was a cumulative hardship to produce those financial reports with such an insufficient accounts system as that at UEM, together with such a dispersed management capacity around the institution (Chapter 5). The result was constant strenuous efforts to comply with the official presentation of those statements.

Table 6.2

Academic qualifications of "Administration" staff

Type and location of personnel	Higher education	Medium level education (11th grade)	Basic education (9th grade)	Elemental education (6th grade)
In 1990 as in P&P:				
Administrative services	2	===== >	around 635	< =====
Technicians	3	===== >	around 197	< =====
Other services	5	===== >	around 418	< =====
Totals	(0,4%)		... 1250	(70% of the total staff had less than the 6th grade)
In 1999:				
Administrative services	23	95	112	123
Technicians	90	172	97	162
Other services	4	75	207	673
Totals	117 (6,4%)	342 (18,6%)	416 (22,7%)	958 (52,3%)

Sources: Universidade Eduardo Mondlane (1991). *Present and Perspectives*. Maputo, Mozambique and Ministério do Ensino Superior, Ciência e Tecnologia (2000). *Plano estratégico do Ensino Superior em Mozambique para o período 2000-2010*. Maputo, Mozambique.

Wield, when analysing foreign donor reporting requirements and the capabilities of recipient institutions to present such data, suggested that universities could improve their reporting by (Wield, 1995, p. 84):

- "(i) gathering full data on the level and main characteristics of their donor support, to better understand the full picture of the institution - and to know the gaps in information from donors;
- (ii) beginning annual institution reports, focusing on key process and output indicators, based on the institution's own strategies;
- (iii) developing and harmonising comprehensive external or official audit, of all funds - internal and external;
- (iv) developing, and experimenting with, integrated reporting systems at

- the faculty and institute/centre level;
- (v) initiating a dialogue with donors on how such reports would satisfy donor reporting requirements".

With coherent and integrated financial management and accounting systems the production of reports should come out as part of the regular outputs of the systems concerned!

A higher education institution must have a Chart of Accounts and an accounting system that reflects its varied activities and enables the organisation to budget adequately for its planned work, follow timely the use of funds on those budget parameters and assess and monitor the corresponding activities carried out on the ground. Certainly, the lack of those management and administration tools is replaced by fragmented and time consuming attempts to cover for that insufficiency.

At the end of this thesis, based on my own extensive acquisition of working practices and experiences, a series of concise recommendations is presented for improvement of the management capabilities of any African university/higher education institution:

- Institutions need to have the space and time necessary to decide on the organisational model they will adopt - while it is acknowledged that this model should not be too extravagant and "different" from the worldwide general configurations, also it has to be acknowledged that institutions must have both the courage not to scatter resources which would create too many clusters of activity and to have flexible and streamlined organisational connections to benefit from cross-fertilization and team objectives.

Institutions need to have the dynamism and ability to assess and change the course of their actions deciding when to make necessary adaptations and corrections for the organisational model adopted.

Institutional development is not a question of resources only - time and methods for processing the issues are crucial for the absorption and infiltration of the concepts in to the organisational culture - one shot actions only last for minutes...

- Strategic and operational plans should be developed within the institution's organisation to keep them consciously focused on their work without deviations of "external" and uncontrolled nature.
- An high level of attention is needed for proper and functional financial and accounting systems to provide management and staff with reliable, legible and updated budgetary and financial information on the resources available at the institution.

Without those systems in place, the magnitude of the accountability process of the institution will decline and the amount of resources allocated for its work will be affected.

Appropriate and acceptable Charts of Accounts (in the case of systems where they do not exist at all) and inherent regulations should exist.

Modern techniques to process the accounting information of the institution should be spread around the institution.

Regular external/independent audits have to exist as part of the normal accounting practices.

- Continuous improvement of skills and know how of the personnel involved in the financial management and accounting areas as well as in other "administration" areas of the institution should be fostered, having in place a corresponding training strategy and inherent operational plan.

Deans of Faculties and Heads of Departments should follow regular in-house crash training sessions on the management issues namely in the areas of financial and accounting matters.

- Exchanges of experiences with other universities in the areas covered by the "administration" will be beneficial to contribute to the creation of a sense of pride and collective work spirit - this could take place either in the country or regionally.

Administrators should be encouraged to publish their observations and concerns in Portuguese or even in other languages - to cross the barriers of their own institutions' confinements and to get insights and inputs of other colleagues in the same areas of work.

Institutions should have an internal newsletter, for "administration" matters, to cross the physical boundaries of each unit within the organisation.

- Overall work quality improves significantly if there is a simple but efficient "administration" working side by side with "academic staff" for teaching-research-service work.

Higher education institutions must pay attention to developing an integrated pattern of work based on a coordinated and inter-active management and the fostering of continuous cooperation between the two layers of staff.

..*

On 1 May 1976 Eduardo Mondlane University received a public mandate to cover its functions (teaching, research and services) in a cradle of hope and goodwill.

The highs of integrated work in the research area occurred during the period 1982 to 1988 and still kept some activity during 1989 and 1990. During the end of 1990 and 1991 most of the attention of UEM's senior staff was focused on "P&P" emergence. 1992 and 1993 were the years to make that change become real.

The results of UEM's activity in a 17 year period (until end 1993) and beyond are perceived in the graduation of a sizable number of Mozambique's citizens who work in different areas of expertise - those graduates are now filling the leadership and intermediary posts in the public service, in private enterprises, in the banking business and others. Also, the research undertaken by UEM impacted in the area of internal strengthening by contributing to the post-graduate qualifications of the institution's staff. Service activities that began at the time are now widely known. Examples are the continuous activities of the veterinary clinic and laboratory analysis combined with the National Veterinary Institute; the medical faculty laboratory analysis

combined with the analysis performed by the National Central Hospital, in Maputo; and, finally, the Computer Centre services to set up as Internet Service Provider.

Responding to a provocative question about whether the University had accomplished the objectives determined as in the 1 May 1976 public guiding statement, Graça Machel said in a reassuring manner (interview, 1999): "Things are valid within the context where they happen... all around the country there are University graduates - UEM has contributed to the foundations under which all the other institutions have built their capacities: at leadership and other intermediate levels there are people who graduated at UEM. (...) At any sector in the country, the existing higher education graduates have surely been at UEM. (...) The mission of giving back to the country the graduates of UEM's teaching process was certainly accomplished".

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APPENDIX 1

Summary of research methods

The research was conducted with an inductive process and with a multi-method approach, as follows:

1. Individual memory of a participant practitioner-researcher

When the thesis started to be prepared no analytical or sequential description of UEM's history was available. The first phase of research consisted of developing a narrative from my individual memory, to systematize this intense working experience, and reflect on processes and practices used over this period (Schon, 1984) (Denzin and Lincoln, 1994) (Schwartzman, 1993). This was particularly important since has been no written history of UEM.

This initial process of writing based on memory and reflection, revealed holes as well as a need for verification and evidence. This was undertaken using a range of methods.

2. Official and unofficial (grey) primary literature

In this stage the official literature on UEM was found and consulted. This literature included the major policy announcement of President Samora Machel in May 1976, documents from UEM workshops and seminars such as Research Seminars and meetings for the institution's development and capacity building, P&P being the last of these.

The grey literature was much more extensive. However, one advantage was that I had collected much of this literature over the

years. Colleagues at UEM were also generous with their documents. Such documents included memos, reports of donor agencies and government, drafts of proposals and concept papers for the Ministry of Education and key donors, and finally, routine documentation of day-to-day operations over the years.

3. Secondary sources

During the above phases, secondary source literature was collected, mainly concerning UEM, the Mozambican context, African university development and also more generally, financial management systems for higher education and materials on "development" and "development management". This new knowledge on education processes, the role of universities and higher education institutions, their functions and systems, and appropriate types of management consolidated my previous knowledge gained from day-to-day work experiences.

4. Reflection

This work led to a further period of reflection in the search for research insights. For example, it was at this point that the invisibility of theoretical thinking in UEM documents became clear. The concepts "development university" and "liberal university" were used to build a framework to analyse UEM's development.

5. Case studies

Three case studies were designed (Yin, 1994). The first was a case study of a small, but relatively successful initiative on Research Management with good integration of academic and administrative leadership. This is the subject of Chapter 4.

The second was a case study of how one unit (GEP) began to establish financial systems changes, also described in Chapter 4. A third case was the most ambitious - the development of the "Present and Perspectives" strategic plan for UEM, described in Chapter 3.

6. Interviews

Preliminary conclusions were developed and drafted on the general development of the institution as well as the evolution of key areas of activity. These were based on the methods described in sections 1-5 above. Because there were "holes" in the processes described as well as verification requirements, interviews with key actors were crucial.

Interviews were made with selected actors:

- the first UEM's Rector
- the Minister of Education from 1975 to 1989
- the first two Secretaries to UEM's Scientific Council
- a former UEM Director of Pedagogical Affairs
- a prominent participant in UEM's internal FRELIMO structure
- two SAREC ex-Program Officers who managed the Mozambique's affairs.

Semi-structures interviews were conducted, lasting for several hours. These were transcribed and analysed according to the categories chosen for the preliminary draft of research results. The transcripts were used for two purposes: to verify arguments already drafted; and to add new insights that fleshed out the argument.

7. Generation of conclusions

A new set of conclusions was drawn including interviews observations which once more were subjected to analysis through the theoretical framework. New insights were gained. For example, the importance of the "administration structure" in the institution's environment and performance became quite clear in this phase. Selected literature on this topic was selected and added.

8. Conclusions on financial system

With the comprehensive analysis of institutional development and change now complete, including evolution of its main financial system, it was possible to concentrate attention on "Accountability" concerns. Adequate "accounting structure" and "financial management" issues were the final topics getting my attention. Based on the same research process as described above, analytical conclusions were generated for Chapters 5 and 6.

APPENDIX 2

Interviews and interview schedules

Interviews

Name	Position during the thesis period	Current position
Fernando Ganhão	Rector of Eduardo Mondlane University (1975/1985)	Professor of History (Economics) at UEM Faculty of Economics
Armando Lopes	Director of Pedagogic Affairs (1986/1944)	Professor of Linguistics at UEM Faculty of Arts
Graça Machel	Minister of Education (1975/1989)	Chancellor of the University of Cape Town, South Africa and Chairman of the Board of Trustees of FDC - Foundation for Community Development, Mozambique
José Negrão	Permanent Secretary of UEM's Scientific Council (1984/1988)	Professor of Sociology at UEM Faculty of Arts/Faculty of Agronomy and Forestry Engineering
Berit Olsson	SAREC's Program Officer for Mozambique (1985/1992)	SAREC's Director
Patrocínio Silva	FRELIMO party structures at UEM (1975/1992)	Professor of Histology at UEM Faculty of Veterinary
Arlindo Sitoi	Secretary of UEM's Scientific Council (1989/1994)	Professor of History of Education at UEM Faculty of Education
Ann Stödborg	SAREC's Program Officer for Mozambique (1980/1985)	SIDA's Head of Department for Analysis and Strategy

Interview schedules

Fernando Ganhão

(Interview in May 1993)

This interview was conducted in a period where Mozambique was in a turning point of its political landscape: the emergence of a new Constitution was in the forefront coming from the Peace Agreement and framing a multiparty system covering for various ideologies and opinions.

Fernando Ganhão was Rector of the Eduardo Mondlane University since January, 1975 to mid-1985. After quitting his leadership position at the university he kept giving classes of History (Economics) at the Eduardo Mondlane University. Because being an important piece of the FRELIMO apparatus, he continues to be asked to participate in interviews and panels to present the "old" and "new" FRELIMO views.

The interview was conducted in a complete open format so to get the most of the interviewer insights on the tasks to be pursued by the Eduardo Mondlane University bridging from the colonial mission, organisation and "modus operandi" to accommodate being the only university in a new independent country, in a period of worldwide changes. The organisation challenges faced by the university in view of the resources (financial, infrastructural and the manpower and know how available) were also approached in this exchange (covering course contents, faculties and university structures, sustainable management practices, new partnerships to be forged and sustained).

Armando Lopes

(Interview in 21 May 1998)

Armando Lopes was among the new academic staff members of the Eduardo Mondlane University who followed carefully the adjustments introduced in the curriculum structure of all courses. One of his main tasks was to frame the changes of curriculum into legal "Curriculum Reforms" and oversee its introduction in the faculties courses without harming the course structure and disciplines already followed by the students.

The interview aimed to have his insights on UEM's struggle to adjust curriculum contents to market demands; also his comments were collected on the consequences for the teaching processes of the increasing number of students being enrolled at UEM together with the opening of new courses; finally, comments were noted on the operational adjustments introduced in classes namely due to the field work practices reduction because of the intensification of the internal war.

Graça Machel

(Interview in 7 October 1999)

Graça Machel was Minister of Education from independence to beginning of 1989. Her role was to set up an Education System (obviously also catering for Higher Education!) that would educate and train the Mozambicans to meet all future development and market demands. Her opinions were noted not only because looking to the higher education portion of the system as an "outsider" but interested observer but also because of having a full view of the education component in its variety and different options.

The interview was conducted to find on the expectations that the higher education sub-system of education was previewed to meet. Comments of the enhancement of the administrative support embedded in all "educational" activities were also noted. Finally, comments on the achievements of the Eduardo Mondlane University as perceived by the interviewer were also recorded.

José Negrão

(Interview in 24 January 1998)

José Negrão established the "modern" university's Scientific Council support structure and was instrumental on the coordination of UEM's research function, focusing on the institution's rationale to support the departmental efforts to launch and pursue their research activities.

The interview aimed to get José Negrão recollections of his efforts to develop the institution's rationale together with his understanding of how to nurture and make this rationale meaningful - what was the program and administrative support provided to UEM departments where research was taking place or was still embryonic?

Berit Olsson

(Interview in 21-24 July 1999)

Berit Olsson had a "builder's" approach to provide the Eduardo Mondlane University with organisational hints for its "research" function - this approach was exercised through the resources made available to the Mozambican University by the Swedish Agency for Research Cooperation with Developing Countries.

The interview envisaged to collect from Berit Olsson her views on the organisational stages accomplished by the "research" function in the Mozambican institution. But the most important catches were not only her general views of the purpose of the administrative support underlaying this function's operation - and how this intention is categorised and put into practice, but also how this was expressed at the Eduardo Mondlane University.

Arlindo Sitoi

(Interview in 16 May 1995)

Arlindo Sitoi succeeded to José Negrão - while the position was the same, the donors approach was now clearly favouring a stronger departmental management rather than a general UEM's approach.

The interview attempted to get Arlindo Sitoi's comments on the new management (program/administration) practices adopted by the Scientific Council support structure to keep the balance between a "central" coordination and the "departmental" development of research.

Patrocínio Silva

(Interview in November 1997)

Patrocínio Silva was a very active and prominent person in the FRELIMO structures inside UEM.

The interview aimed to capture flashes of the influences of the FRELIMO cells in the lay university operations.

Ann Stödborg

(Interview in 21-24 July 1999)

Ann Stödborg was the second SAREC's Program Officer who dealt with the program set with the Eduardo Mondlane University – almost from its inception until mid-1985.

The interview aimed to get her recollections of the UEM's potential to partner with SAREC for research development purposes. It was also reviewed the set of suggestion made, during Ann Stödborg's working time with UEM, for the importance of the university's internal and external financial accountability for any research funds available.